Do Childhood Experiences and Insecure Attachment Style in Women with Gynaecological Cancer affect Trust in Care?

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Dedication

To Auntie Jayne and Great Auntie Ruth.

Acknowledgements

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Introductory Chapter: Thesis Overview

This volume presents the research carried out in partial fulfilment of the Doctorate in Clinical Psychology at the University of Liverpool. It contains three papers, addressing the area of cancer patients' trust in care.

In times of distress, patients engaged in a course of psychological therapy wish to feel safe, contained and to trust that the clinician is working in their best interests. The same holds true in a medical setting, where being diagnosed with a life-threatening illness such as cancer evokes feelings of vulnerability, helplessness and intense fear. Clinicians can be viewed as attachment figures in this time of stress, being the cancer patient's main hope for creating safety in the face of threat. Whilst a relationship with the clinician characterised by trust is beneficial at this time, unfortunately not all patients experience the relationship in this way. Before we can suggest means to improve cancer patients' sense of trust in the clinician, we need to understand the factors which prevent patients from developing trust in their clinician. Unlike the field of psychotherapy, where patient factors influencing the relationship with the therapist have been extensively researched, the medical field has focused its efforts on attempting to highlight the contribution of the clinician. This thesis aims to address this current dearth of literature, and focus on patient factors which could impede them from having trust in cancer care.

Paper 1: Literature review

The review paper provides the backdrop for the research. A specific sub-section of the background literature that informed the development of the research is considered here. A general review of current knowledge relating to all aspects of cancer patients' experiences highlighted an area of relative dearth in research. From this, a specific research question was developed: what is the role of patients' experiences in trust in cancer care? A focussed literature review was conducted in response to this pre-determined question, investigating whether patient factors of trauma, abuse and attachment style shape patients' trust in cancer care. The review adopted a structured approach to interrogating the evidence base, and the search terms and eligibility criteria for inclusion of papers are outlined. This section presents the identified papers, comparing and contrasting aims, design, methodology and findings, and explores the key themes that arose. The collective limitations, inconsistencies and gaps in this literature base are explored, and future directions to

address these points are suggested. The review paper presents a picture of the current knowledge in this area, enabling the reader to locate the research study in its broader context.

Paper 2: Empirical paper

Building upon paper one, the second paper describes the main features of the research study, presented according to author guidelines set out for the journal Psycho-Oncology (Appendix A). Whilst a trusting patient/clinician relationship is repeatedly highlighted as important in healthcare, there is a tendency in the research to neglect the patient's contribution to this interaction. Attempts to identify individual patient factors that contribute to the sense of clinical relationship are dwarfed by extensive research focussing upon the clinician's competence, skill, communication and interpersonal style. The little research that has been carried out in this area has predominantly sampled women with breast cancer, leaving unexplored questions about the generalisability to other populations. In an attempt to redress balance, this research investigated patient factors which affect trust in the clinician, in a sample of gynaecological cancer survivors. The process of developing and conducting the study took two and a half years, whilst recruitment commenced after ethical approval was sought, and spanned 52 weeks. The key features of the study are outlined in this section.

Paper 3: Concluding discussion

The third section draws out the main findings of the research, and discusses the wider relevance. Further attention is given to the relative strengths and weaknesses of the study, and the study's applicability to clinical practice is considered. A short lay summary is presented, which was written for dissemination of the research to the participants who had requested feedback. This discusses the key contributions of the research to the literature base, and states what will be done with the findings. Finally, a research proposal describing a possible follow up study is outlined, taking into account the limitations of this research and considering how it can be extended. This concludes the thesis.

Chapter I: Literature Review

Abstract

Objective: Patient trust in cancer care has been identified as important from both patient and clinician perspectives, manifesting in practice as patients perceiving a good relationship with the clinician and accepting the clinician's treatment recommendations. Trust in the cancer clinician is suggested to increase patient adherence to the care plan, satisfaction with care and ultimately treatment outcomes. Identifying factors relating to patients' previous experiences of relationships which prevent them from building a trusting relationship with their cancer clinician can therefore potentially make a significant contribution to clinical practice. To ascertain an overview of current knowledge in this area, a literature review was conducted.

Methods: Patients' past experiences of relationships which could potentially influence the ability to trust clinicians were identified, and operationalised as the search terms 'trauma', 'attachment' and 'abuse'. These were paired in turn with key words relating to components of trust in cancer care: 'trust', 'relationship' and 'decision making'. Each search also included (cancer OR oncol*) to establish the setting. The electronic databases Web of Science and PsycINFO were searched to detect relevant literature between 1993 and 2013, and returned a total of 904 hits. Pre-established eligibility criteria were applied to the returned results, and the resulting literature (n=12) were quality assessed.

Results: A relatively small amount of relevant literature was obtained. Of the 12 studies included, 8 were empirical studies (4 quantitative and 4 qualitative), 2 were theoretical papers, 1 a summary paper and 1 was a dissertation (qualitative). Only two studies included the term 'trust' in the title: most focused on the quality of the clinical relationship. Research overwhelmingly drew samples from breast cancer patients, which meant that the review as a whole comprised approximately 94% female participants. The empirical papers were quality assessed, and were generally of a high standard.

Discussion: The small number of studies conducted in this field provides preliminary evidence for the negative effect of childhood abuse, trauma and insecure attachment style on trust in the cancer clinician. In this under-researched area, more attention needs to be paid to the potential influence of the patient's history of abuse and insecure attachment style on the ability to trust in cancer care. Future studies should aim to

extend the findings of those studies reviewed to other cancer groups, to ascertain whether, for example, results in breast cancer samples are replicated in other female cancer groups. More attention should also be paid to male cancer patient samples, which is currently a relatively neglected area.

Key terms: cancer, oncology, childhood abuse, trauma, attachment, relationship, trust, decision making

What is the Role of Patients' Early Experiences in Trust in Cancer Care? A Narrative Review.

Cancer is a common disease, with over 200 different identified types (NHS Choices, 2012) and 325,000 new cancer diagnoses in the UK alone in 2010 (Cancer Research UK, 2012). In 2008, cancer accounted for 7.6 million deaths worldwide, with lung, stomach, liver, colon and breast cancers causing the most deaths (World Health Organisation, 2013). In the context of the UK, cancer causes more than 1 in 4 deaths, and more than 1 in 3 people will develop cancer in the course of their lifetime (Cancer Research UK, 2012). These statistics are disturbing. However, treatment developments in recent years have meant that deaths from cancer are decreasing (Cancer Research UK, 2012) and average length of survival post treatment is increasing (Office for National Statistics, 2011). For the patient, a cancer diagnosis still evokes shock, fear and helplessness (Palmer, Kagee, Coyne, & DeMichele, 2004).

Receiving a diagnosis of cancer, and undergoing the treatment that ensues, tend to be distressing experiences (Lilliehorn, Hamberg, Kero, & Salander, 2010). Whilst a positive relationship with clinicians can buffer against distress, some patients find it difficult to access support or trust their clinician (Brennan, 2008). For these patients, elevated levels of distress may continue well after successful treatment of cancer is complete, even if the patient has a good prognosis. Ascertaining the factors that prevent patients from trusting their clinicians and accessing support will assist clinicians' understanding, and help them attend to emotional well-being in addition to physical health.

Trust

Trust in the clinician is particularly important for patients with life-threatening illnesses such as cancer (Salkeld, Solomon, Short, & Butow, 2004). Cancer patients report that a high level of trust in their clinician is important (Bernstein, Potvin, & Martin, 2004), where 'trust' can be defined as: confidence that the clinician is working in the patient's best interests (McKinstry, Ashcroft, Car, Freeman, & Sheikh, 2006). Trust can be thought of as encompassing the strength or quality of the relationship with the clinician, characterised by agreement on goals and feeling supported. In addition, when patients trust clinicians, they assume a more passive role in decision making, i.e. patients are comfortable having less input into decision making and allow the doctor to have the more dominant role in making decisions about their care (Pollock,

Moghaddam, Cox, Wilson, & Howard, 2011). Thus, a high level of trust is indicated by a good clinical relationship and a preference for decision making to rest with the clinician (Freedman, 2003; Henman, Butow, Brown, Boyle, & Tattersall, 2002).

Patient factors affecting trust

A preliminary review of the literature has suggested patient factors that may affect the ability of cancer patients to trust their clinician. Some patients face barriers to being able to form a trusting relationship with their clinician, as trust is an active process, which depends, in part, upon the psychological processes of the patient. Patient factors which may affect the propensity to trust the clinician include trauma (Dzul-Church, Cimino, Adler, Wong, & Anderson, 2010), abuse in childhood (Salmon, Holcombe, Clark, Krespic et al., 2007) and attachment style (P. S. Ciechanowski, Katon, Russo, & Walker, 2001).

The effects of traumatic events in childhood can be long-standing. Those affected by childhood trauma find it more difficult to cope with subsequent traumas, and struggle to manage stressful life events (Kendler, Kuhn, & Prescott, 2004). With life-threatening illnesses such as cancer often being experienced as traumas (Cunningham, 1997), the presence of pre-existing trauma could put this group of patients at higher risk (Dzul-Church et al., 2010). Previous studies have shown that post-traumatic stress disorder affects the ability of patients to participate in interpersonal relationship effectively (Callahan & Hilsenroth, 2005) which can impede the uptake of supportive relationships with healthcare providers (Monahan & Frogash, 2000). Therefore, patients' previous experience of trauma could play a role in how much the patients trust the cancer clinician.

Those affected by abuse in childhood may experience difficulty in relating to others (Fiorillo, Papa, & Follette, 2013) and, therefore, struggle to establish and maintain trusting relationships (Salmon et al., 2006). Cancer patients are required to relate to their clinicians, and an inability to do so could be damaging to their care. Childhood abuse can lead to an individual having an insecure attachment style. As attachment processes are activated at times of extreme threat, it is proposed that patients view their cancer clinician as an attachment figure. Research conducted in diabetes suggests that attachment style affects trust, where insecurely attached individuals report lower levels of trust than those who are securely attached (P.

Ciechanowski & Katon, 2006). Therefore, it is likely that the patient's attachment style affects the patient's level of trust in the cancer clinician.

This brief account of patient factors which may impair trust leads to a research question: Are patient attachment style and adverse experiences linked to trust in clinicians in cancer care? This will be assessed through selection, review and comparison of relevant literature.

Method

A search was conducted to gather literature relevant to the research question, which reviewed articles from two databases (Appendix B). Web of Science was selected as the primary database for the literature search, as a multi-disciplinary database covering 12,000 journals (Reuters, 2013). A secondary database was identified – PsycINFO, which draws from psychological journals - and used as an additional source (EBSCO Host, 2013). The search strategy employed combinations of key terms that were identified as central to the research question: trauma; abuse; attachment; decision making; trust; and relationship (see Figure 1). Words were searched for individually rather than as phrases to maximise the number of hits returned, and Figure 2 shows the fields that were searched in each database.

The searches yielded a total of 904 hits. Alerts were set up to ensure any new articles were captured after the initial search was conducted. Inclusion criteria for articles were decided prior to conducting the search, and are displayed in Figure 3. The flow chart displaying the process of selection for the review is presented in Figure 4, with a detailed flow chart in Appendix C. After the inclusion criteria had been applied to the literature, a total of 12 remained and were included in the review. Papers constituting empirical studies were critically reviewed against pre-determined criteria, which were developed for the purpose of this review and are displayed in Appendix D (adapted from Von Elm et al., 2008).

1.	Trauma	AND	decision making	AND (cancer OR oncol*)
	Trauma	AND	trust	AND (cancer OR oncol*)
	Trauma	AND	relationship	AND (cancer OR oncol*)
2.	Abuse	AND	decision making	AND (cancer OR oncol*)
	Abuse	AND	trust	AND (cancer OR oncol*)
	Abuse	AND	relationship	AND (cancer OR oncol*)
3.	Attachment	AND	decision making	AND (cancer OR oncol*)
	Attachment	AND	trust	AND (cancer OR oncol*)
	Attachment	AND	relationship	AND (cancer OR oncol*)

Figure 1. The searches entered into Web of Science and PsycINFO.

PsycINFO: Title, translated title, classification codes, abstract, keyword, subjects, and author.

Web of Science: Title, abstract, author, keywords and "keywords plus" (index terms created by Thomson Reuters taken from the author's citations).

Figure 2. Database fields searched in PsycINFO and Web of Science.

1. Published in the last 20 years
2. Written in English
3. Used an adult sample (aged 18 and over)
4. Sample included cancer patients
5. A psychological study or review of patient-clinician relationships in healthcare

For searches related to 'abuse'

6. 'Abuse' refers exclusively to physical, emotional or sexual abuse

For searches related to 'trauma'

7. 'Trauma' refers exclusively to pre-cancer trauma

Figure 3. The review paper inclusion criteria.

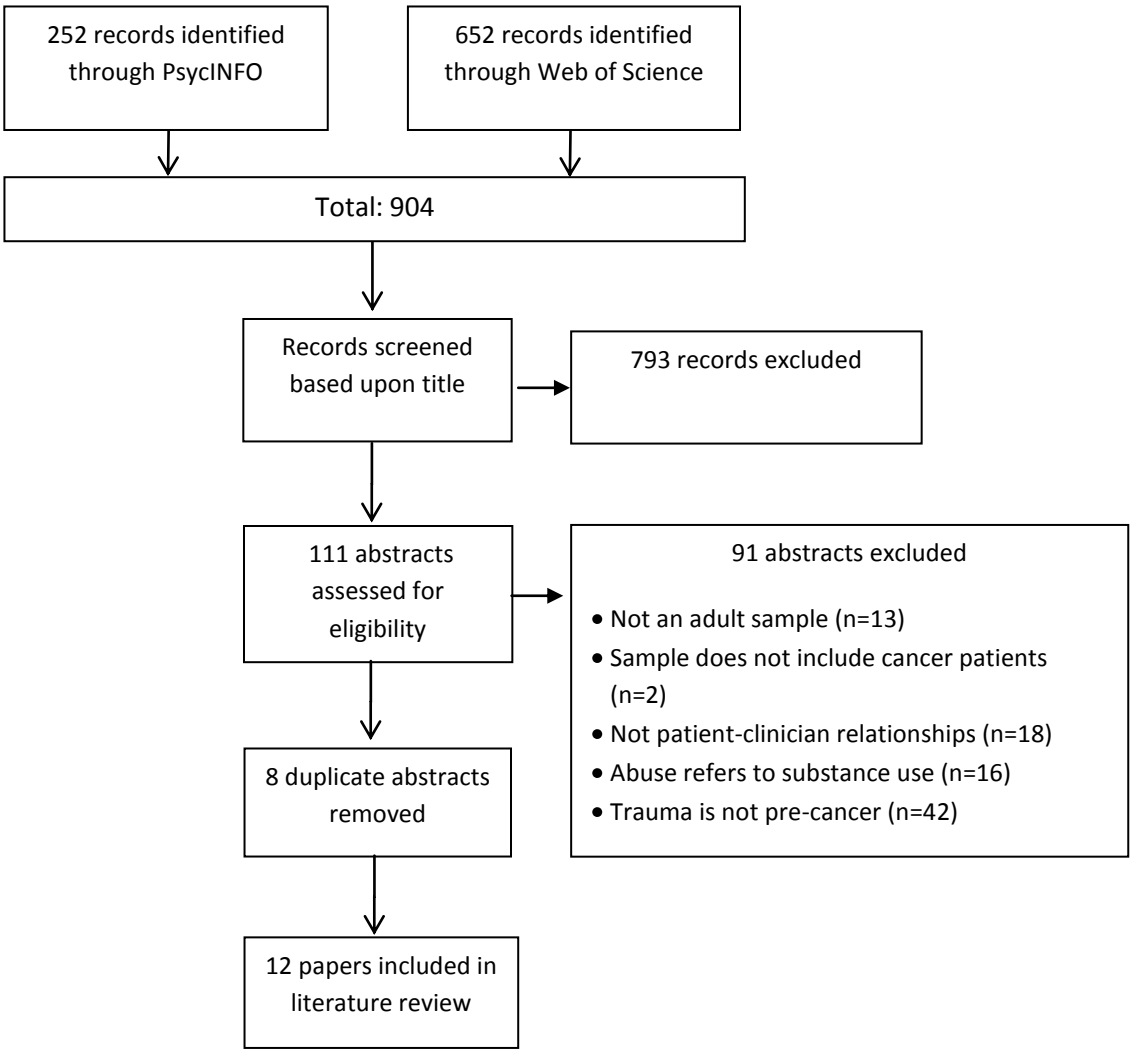

Figure 4. Flowchart showing the stages of selection of literature for the review.

Results

Study characteristics

Results and study characteristics are summarised in Tables 1 and 2, for empirical papers (n=8) and non-empirical literature (n=4) respectively. Non-empirical literature included was: two theoretical papers; one dissertation; and one summary paper, which briefly outlined an empirical study also included in the review. Chosen literature rarely addressed the proposed research question directly, though all literature included contributed to the knowledge in this area in some way. The literature was authored in four countries: 7 in the UK; 3 in the USA; 1 in Sweden; and 1 in The Netherlands. Published literature (n=11) were presented in both cancer-specific and general medical journals, and a variety of sources were

represented, with Patient Education and Counselling being the only journal to publish more than one of the selected papers for this review (n=3). The other journals represented were: Journal of Psychosocial Oncology; Acta Oncologica; Psycho-Oncology; European Journal of Cancer; Journal of Palliative Care; Journal of Psychosomatic Research; British Medical Journal; and General Hospital Psychiatry. Of the eight empirical papers, four used quantitative methodology and four used qualitative.

Aims

Studies employed varying conceptualisations and approaches to trust. All studies employing quantitative methods set out to investigate the patient's perception of quality of the clinical relationship, and determine whether patient factors were associated. Two studies explicitly used the term 'trust' (Wright, Holcombe, & Salmon, 2004; Holwerda et al., 2013). None of the qualitative studies specifically aimed to investigate patient trust in care at the outset. Broadly, three studies sought to understand patients' needs of healthcare and clinicians, whilst the remaining study outlined the impact of specific patient factors on cancer treatment. Thus, patients' trust in care was not a pre-determined focus of these studies, but arose as a notable theme. The dissertation (Meyer, 1997), which also used qualitative methodology, aimed to explore the clinical relationship and, as such, trust was the predominant theme that surfaced. The theoretical papers discussed the quality of the clinical relationship, and reviewed patient factors that may affect the perception of trust in healthcare (Salmon & Young, 2005; Salmon & Young, 2009).

Samples

Studies varied in their sample sizes, with qualitative papers ranging from 9 (Meyer, 1997) to an unusually large 71 participants (Lilliehorn et al., 2010), and quantitative studies ranging from 100 (Clark, Holcombe, Beesley, & Salmon, 2010; Clark, Beesley, Holcombe, & Salmon, 2011) to 355 participants (Salmon, Holcombe, Clark, Krespi et al., 2007). Most studies exclusively included cancer patients (n=9). The exceptions were the two review papers (Salmon & Young, 2005; Salmon & Young, 2009), which drew literature from cancer samples in addition to other healthcare settings, and a qualitative paper that sampled 'end of life' patients, most of whom had a cancer diagnosis of unspecified type (Dzul-Church et al., 2010). Of those studies that solely recruited cancer patients, all included breast cancer patients (n=9) with most

papers (n=7) recruiting only patients with this diagnosis (Clark et al., 2010; Pegman, Beesley, Holcombe, Mendick, & Salmon, 2011; Salmon et al., 2007; Wright et al., 2004). The remaining papers (n=2) included patients with other cancer types, including lung, prostate, intestinal and cervical, though for both studies more than 50% of their participants had a diagnosis of breast cancer (Gallo-Silver & Weiner, 2006; Holwerda et al., 2013). These studies, and the study including 'end of life' patients (Dzul-Church et al., 2010) were, therefore, the only studies to include male patients, which meant that of the total sample across studies (n=875), male patients constituted only approximately 6%. A broad age range was represented across the studies: from 19 to 81.

Trust

The literature addressed the focus of the patient's trust, both broadly - about healthcare and patient-clinician relationships in general (Dzul-Church et al., 2010; Meyer, 1997; Salmon & Young, 2005; Salmon & Young, 2009), and more specifically - asking the patient to consider specific clinician(s) involved in their care, such as a surgeon (Clark et al., 2010; Holwerda et al., 2013; Pegman et al., 2011; Salmon et al., 2007; Wright et al., 2004). Studies varied in the methods employed for measuring trust. Qualitative studies were focussed upon describing trust and exploring factors that could improve it. The quantitative studies all used measures capturing trust in some way: one employed a formal trust measure (Holwerda et al., 2013), and three studies utilised measures capturing support and/or alliance in the clinical relationship (Clark et al., 2010; Clark et al., 2011; Pegman et al., 2011; Salmon et al., 2007). Only two studies presented the statistics relating to level of trust for the whole sample, with (Pegman et al., 2011; Salmon et al., 2007) stating that it was high, though different measures were used preventing comparison (the Perceived Professional Support Questionnaire and Working Alliance Inventory respectively). Holwerda et al., (2013) stated that trust was high, but this was not supported by the analyses, though the authors also confirmed that trust remained constant over time – the only study able to do this due to its longitudinal design.

Table 1

Main features of empirical papers selected for review.

	First author, year, country	Aims	Sample	Design / method	Measures used	Variables assessed	Strength of relationship between variables	Confounders controlled for	Relevant findings
1	Dzul-Church (2010) USA	To understand concerns, preferences and perspectives of patients to improve care.	20 patients whose doctor deems them 'end of life' – majority have cancer diagnoses, minority groups	Qualitative, cross-sectional, semi-structured interviews, thematic analysis	N/A	N/A	N/A	N/A	Patients' difficult life histories impact upon the clinical relationship and impair patient experience, they also preferred more input into decision making
2	Gallo-Silver (2006) USA	To describe the impact of childhood sexual abuse on cancer treatment, and outline psycho-social interventions used.	18 childhood sexual abuse survivors with any cancer diagnosis – 6 breast, 4 lymphoma, 2 lung cancer, remaining 6 different diagnoses	Qualitative, author's description of clinical work	N/A	N/A	N/A	N/A	All participants had experienced one of the following: intense psychological distress due to abuse history, non-adherence to treatment, or disruptions in the relationship with the healthcare team.
3	Holwerda (2013) The Nether-lands	To examine whether insecurely attached cancer patients' are less trusting, less satisfied and report more general distress than those who are securely attached.	130 patients recently diagnosed with cancer – prostate, breast, intestinal or cervical	Quantitative, longitudinal cohort, t-test and repeated measures ANOVAs	Wake Forest Physician Trust Scale, Patients' Satisfaction Questionnaire, Hospital Anxiety and Depression Scale, Attachment Style Interview	Trust, satisfaction, general distress, attachment, patient clinical and demographic information	Trust and attachment: 3 months 0.39 9 months 0.51 Satisfaction and attachment: 3 months 0.55 9 months 0.35 Distress and attachment: 3 months 0.64 9 months 0.58 [Effect sizes]	Physical status (Karnofsky Performance Status) and comorbidity	Insecurely attached patients reported less trust and less satisfaction in their clinician, and were more distressed.

4	Pegman (2011) UK	To determine whether: variation in patients' sense of relationship with surgeon is due to variability between patients or surgeons; and patients with secure attachment would rate stronger relationships with surgeon.	133 women due to undergo surgery for breast cancer	Quantitative, cross-sectional, mixed regression model	Working Alliance Inventory, Hospital Anxiety and Depression Scale (Depression scale only), Relationship Questionnaire, Relationship Scales Questionnaire	Patient / surgeon relationship, attachment, depression	Attachment and Alliance 0.29 (p=0.03) [Regression Coefficient]	Surgeon	Variation in the sense of relationship with surgeons is due mainly to variability between patients, patients with secure attachment style rated a higher alliance with the clinician.
5	Salmon (2007) UK	To ascertain whether women recalling childhood abuse and lack of parental care rate poorer support from the clinician.	355 women with primary breast cancer completed surgery	Quantitative, cross-sectional, logistic regression, covariance structure modelling	Parental Bonding Instrument (care subscale), Self-report abuse questions, Perceived Professional Support Questionnaire, Medical Outcomes Study Social Support Survey, General Health Questionnaire, PTSE Checklist – Civilian Version	Family care, abuse, clinician support, social support, distress, PTSD	Abuse and Support 1.82 (p=0.02) [Regression Odds Ratio]	Age, distress, PTSD	Patients recalling abuse or lack of parental care were less likely to report full support. Perceived quality of professional support depended on patients' childhood experiences.
6	Lilliehorn (2010) Sweden	To identify psycho-social needs of breast cancer patients and develop a model reflecting these.	71 breast cancer patients treated with radiation therapy	Qualitative, repeated interviews, grounded theory	N/A	N/A	N/A	N/A	Good, supportive relationship with healthcare spontaneously identified as a need; patient attachment processes arose as way to explain how they approached the relationship.

7	Wright (2004) UK	To determine how patients with breast cancer want their doctors to communicate with them.	39 women with breast cancer, from immediately after surgery to 2 years post-operative	Qualitative, semi-structured interviews, constant comparison approach	N/A	N/A	N/A	N/A	Patients emphasised doctors' characteristics, want doctors who form individual relationships with them; women seek to regard doctors as attachment figures; patients' perception of the relationship linked to attachment needs.
8	Clark (2011) UK	To test whether: patients recalling childhood abuse were less likely to feel fully supported by clinical staff, and if surgeons' difficulties in relationships mediated this: if patients' attachment style mediated the influence of abuse on patients' or surgeons' experience of the relationship.	100 women with breast cancer around the time of surgery	Quantitative, cross-sectional, mixed regression models	Relationship Questionnaire, Relationship Scales Questionnaire, Self-report abuse questionnaires, Perceived Professional Support Questionnaire, General Health Questionnaire, Parental Bonding Instrument (care subscale), Difficult Doctor-Patient Relationship Questionnaire-10	Attachment, abuse, perceived clinician support, distress, family care, doctor-patient relationship	Abuse and Perceived Support 1.65 (p=0.008) [Regression Coefficient]	Distress, surgeon	Patients who reported abuse were >7 times more likely to feel incompletely supported by the surgeon; attachment model of self mediated this association.
9	Meyer (1997) USA	To understand breast cancer patients' experience of relationship with doctors in the post-treatment phase	9 women with breast cancer, 6 months – 2 years after treatment	Qualitative, semi-structured questionnaire Thematic analysis.	Cancer Rehabilitation Evaluation System questionnaire	N/A	N/A	N/A	Trust was identified as one of the main themes, which was in part based upon patient factors; ability of patient to build positive attachment with doctor affects trust.

Table 2

Main features of non-empirical papers selected for review.

Assigned number	First author, year, country	Type of paper	Aims	Details	Relevant findings
10	Clark (2010) UK	Summary	To test whether recalling childhood abuse is linked to less perceived professional support. Test if childhood abuse would be related to higher clinician-rated difficulty, and if insecure attachment would account for this association.	100 women with breast cancer, quantitative, cross-sectional, recruited after histology consultation, completed self-report measures on distress, attachment, childhood abuse and parental care.	History of childhood abuse had a negative impact on clinical relationships; these patients reported less support and were rated as more 'difficult' by clinicians.
11	Salmon (2005) UK	Review	To question the prevalent theoretical assumptions underpinning clinical communication skills teaching and research, and suggest future research	Selective and critical review. Identifies assumptions in communication literature and teaching, and assesses these against empirical and theoretical viewpoints.	Research has tended to omit patient factors in the development of the clinical relationship; patient attachment models are likely to affect the relationship; suggests further research in this area.
12	Salmon (2009) UK	Review	To highlight literature that can inform research and teaching in communication 'skills', pinpoint theoretical gaps, test utility of emerging theory.	Selective and critical review. Presents theoretical ideas, review of attachment and its applicability to the clinical relationship. Describes practice implications.	Attachment theory helps understand patient approach to clinical relationships, questions whether patients with insecure attachment style find it difficult to trust that doctors are working in their best interests; childhood abuse impairs ability to access support from clinician.

Patient factors

As previously outlined, papers were included if they linked trauma, abuse or attachment to cancer patients' ability to trust the clinician. Whilst some of the empirical studies specifically aimed to investigate abuse (Gallo-Silver & Weiner, 2006; Salmon et al., 2007) or attachment (Holwerda et al., 2013; Pegman et al., 2011) or both abuse and attachment (Clark et al., 2011) at the outset, in some studies (n=4) the impact of these patient experiences, and trauma, upon trust was identified as a result of the study (Dzul-Church et al., 2010; Lilliehorn et al., 2010; Meyer, 1997; Wright et al., 2004). The studies have been drawn together by theme pertaining to areas addressed: trauma; abuse; attachment; and abuse and attachment combined.

Trauma

Only one study referred to the impact of patients' past trauma upon clinical relationships, excluding those that specifically looked at childhood abuse. Dzul-Church et al.'s (2010) cross-sectional, qualitative study aimed to explore 'end of life' patients' experiences using semi-structured interviews, exploring positive and negative experiences with a view to improving care. A sample of 20 patients from minority groups were included, the majority of whom had cancer diagnoses. The authors stated that all patients had experienced past 'trauma', although this was not explicitly defined thus limiting the ability to draw conclusions from the study. Dzul-Church et al. (2010) reported that patients' past trauma helped them to cope with their illness, but negatively shaped their perception of the clinical relationship. The authors also stated that patients preferred a high level of participation in decision making, including advocating for themselves in relation to care, and wanted their difficult histories to be acknowledged by clinicians. The study concluded that patients with difficult life experiences such as trauma may require individualised approaches to their medical care and that clinicians should be aware of the potential link of trauma to a poorer perception of the patient-clinician relationship. The findings, however, should be treated with caution, as this study did not include a control group, so comparisons could not be made to patients without trauma histories. Also, this was not solely a cancer sample: the study included patients with a range of terminal illnesses. Whilst more than half the sample had cancer diagnoses, it is not possible to know whether the results

of this study would necessarily generalise to cancer populations. In addition, it was not clear when the trauma was experienced in the participants' lives, though it was clear that it preceded the terminal illness diagnoses and so this paper was included. However, this qualitative study provides tentative evidence that past trauma is linked to less trust in the cancer care.

Abuse

Two studies assessed the impact of childhood abuse on trust in care (Gallo-Silver & Weiner, 2006; Salmon et al., 2007). Gallo-Silver and Weiner's (2006) qualitative study sampled patients who had experienced childhood sexual abuse, and found that in all cases (n=18), patients' experience of cancer treatment provoked intrusive memories relating to their past experience(s) of sexual abuse. The sample comprised both women (n=12) and men (n=6), with various cancer diagnoses, which makes it one of only three studies not focusing solely on female breast cancer patients. The paper reviewed clinical work and psycho-social interventions that had been used with the patients, making it an uncontrolled, descriptive piece of work. The authors noted that patients who recalled childhood abuse were more distressed than those who did not, but this was a subjective view and cannot be empirically supported by this paper. Whilst Gallo-Silver & Weiner (2006) presented anecdotal evidence that this group of patients is more likely to experience disruptions in the health team and is less likely to adhere to medical treatment, the study did not include a control group so this cannot be substantiated. In addition, this finding could be due to the sampling methodology, where patients reporting abuse were identified by oncology social workers, who are more likely to be involved in cases where there are issues in non-compliance with treatment and clinical relationship dysfunction.

Salmon et al.'s (2007) quantitative study investigated whether women recalling childhood abuse and a lack of parental care rated poorer support from the cancer clinician. The design was cross-sectional, with participants completing questionnaires on childhood abuse, parental care, clinician support, social support, distress and post-traumatic stress. Participants (n=355) comprised women who had not reported abuse, in addition to those who reported sexual abuse (10%), physical abuse (28%) and emotional abuse (25%). The three types of abuse experienced were combined to produce one indicator of abuse, so participants were divided into two groups: reporting childhood abuse or not

reporting childhood abuse. Thus, distinctions between patients recalling specific abuse types were not possible. Women recalling childhood abuse were older and reported higher levels of distress on measures of general distress and post-traumatic stress disorder (PTSD) symptoms. The study confirmed that a history of abuse can impair relationships with clinical staff, even when the covariates of age, distress and PTSD were controlled for in statistical analyses. Salmon et al. (2007) also found that patients' ratings of professional support were related to patients' perceptions of support from friends and family, providing evidence for the idea that trust in clinical relationship is determined by patients' own abilities to feel supported, rather than being based on the clinician attributes such as competence or personality. In summary, those patients who have experienced childhood abuse struggle to trust their clinician, and also experience more distress, than those who do not report abuse, suggesting that extra attention should be paid to this group in order to meet their needs sensitively and appropriately.

Whilst the findings of Gallo-Silver and Weiner's (2006) study should be treated with caution owing to the uncontrolled nature of the study, Salmon et al.'s (2007) more valid and reliable study provides robust evidence that patients' history of abuse can negatively shape their perception of trust in the clinical relationship, providing some support for the research question of this review. Both studies also highlight that there is a paucity of research into cancer patients recalling a history of abuse, thus identifying an unmet need in the literature base.

Attachment

Several studies referred to attachment style (n=5), with 2 quantitative studies explicitly aiming to assess the impact of this upon trust (Holwerda et al., 2013; Pegman et al., 2011), and 3 qualitative studies drawing out attachment as a theme or a means of explaining the findings (Lilliehorn et al., 2010; Meyer, 1997; Wright et al., 2004). The studies viewed the patient-clinician relationship in terms of attachment processes, suggesting that the dependency of patients on doctors leads to patients applying their own attachment models to the newly-acquired attachment figure.

Qualitative studies recognised that attachment could impair patients' perception of trust in cancer care, and the quantitative studies empirically tested this link. There was agreement between Holwerda et al. (2013) and Pegman et al. (2011) that insecurely attached patients experienced less trust in the clinician than those who were securely attached, as rated on a measure of trust or a measure of clinical relationship respectively. Holwerda et al. (2013) found physical status and comorbidity to be covariates and the relationship between attachment and trust remained significant when these were controlled for. Pegman et al. (2011) identified that the surgeon may be a confounding factor, and this was taken into account. It was found that variations in the patient's sense of clinical relationship were owing to variability at the patient level, rather than clinician level, further implicating patient factors in determining level of trust in care. There was general consensus that patient attachment was linked to trust in cancer care, and that further research was warranted in this area.

Abuse and attachment

Two review papers, both penned by the same authors (Salmon & Young, 2005; Salmon & Young, 2009), provide theoretical support for the idea that abuse and insecure attachment style negatively shape the patient's trust in cancer care. Salmon & Young (2005) aimed to question the theoretical assumptions underpinning clinical communication skills teaching and research by means of a selective and critical review of the literature. Salmon & Young (2009) highlighted literature that could inform research and teaching in communication skills, and draw attention to gaps in the theoretical basis. The articles question the prevalent assumptions that doctors should 'build' a clinical relationship and empower patients, and highlight that research has tended to omit patient factors in the development of the clinical relationship. It is argued that the patient/clinician relationship inherently creates a power imbalance that means patients are dependent upon their clinician, activating attachment processes. A pathway between childhood abuse and development of attachment style is outlined, which is followed up by Clark et al. (2011).

Clark et al. (2011) is the only empirical paper which investigated both patient factors abuse *and* attachment style, and how they link to trust in cancer care. In assessing breast cancer patients'

relationship with their surgeons, patients recalling any type of childhood abuse were more than 7 times more likely to feel incompletely supported, compared to those patients who did not recall abuse. Furthermore, attachment model of self mediated this relationship between abuse and perceived support. These findings remained even when the potential confounding variable distress was controlled for. Age was checked for its possible confounding effect, as had been identified by Salmon et al. (2007), and prognosis, but neither were found to have any relationship with the independent or dependent variables, and so were not controlled for in the final analysis. As in Pegman et al.'s study (2011), surgeon was taken into account in the analysis. These results provide support for the claim that early experiences impact upon the cancer patients' trust in clinicians, which is further backed up the firm theoretical basis as outlined by Salmon and Young, 2005 and Salmon and Young, 2009.

Discussion

This review has surveyed the current literature relating to cancer patients' attachment style, reported childhood abuse or trauma on trust in cancer care. Whilst there are palpable benefits to identifying patient factors which are linked to the level of trust in cancer care, the limited amount of identified literature in this review (n=12) demonstrates that this is a largely untouched area of research. Despite this dearth of research, there are findings of importance in the studies which have been conducted in this field. Qualitative studies that had no pre-determined aims related to this review have yielded findings that spontaneously identified patient factors linked to level of trust, including trauma, abuse and attachment style. Quantitative studies have investigated the interplay of these variables, finding evidence that patients' recalling abuse or having insecure attachment style report less trust in the clinician compared to those patients without abuse histories, and/or with secure attachment style. These preliminary findings should be followed up with more research and theoretical clarification, in attempt to consolidate the knowledge in this area.

Of the studies that outlined levels of trust, overall trust in cancer clinicians was reported to be high. Hall, Dugan, Zheng & Mishra (2001) state that generally trust in clinicians is strong, which fits with the findings of this review. This makes it even more important to seek reasons to explain why a

certain subgroup of patients find it difficult to trust their clinician, particularly when poorer trust is related to decreased satisfaction with care and compliance with treatment.

Clinical relevance

Research into psychological therapies has long acknowledged the impact of a patient's early experiences and attachment style upon the clinical relationship. Those recalling childhood abuse are generally less able to form secure and trusting relationships with the therapist than those without abuse histories, and this can diminish the efficacy of treatment (Smith et al., 2012). Patient factors which prevent some individuals from building a trusting relationship with the clinician may be even more important to clarify in the cancer setting, where medical consultations are characterised by shorter interactions and fewer opportunities for the clinician to identify and respond appropriately to patient needs. The medical field should draw level with the advances made in research examining the therapeutic relationship in mental health, and aim to identify the relevance and significance of patient factors in the quality of the clinical relationship. By acknowledging that patients bring with them a wealth of previous experiences shaping the way they perceive, interact with, and trust others, research can begin to address the most effective ways for clinicians to respond to individual differences.

Limitations of the literature

Unfortunately there are few researchers examining this important area. This means that of the 12 studies reviewed, 7 of them had input from one author. Whilst it is preferable to consider research from a variety of sources, and therefore a variety of authors, this is not possible when the research area itself is so under-developed.

Breast cancer patient samples were over-represented in this review, with few patients with different types of cancer. This is a limitation of the evidence base, meaning that it is not possible to generalise the findings of these study to other cancer groups. Because of this focus on breast cancer patients, most studies included only female participants, and so the ability to generalise these findings to male cancer patients is also limited. However, this does mean that a coherent picture has been built up of one sample of cancer patients, upon which future research can build.

The area of trauma is the least well-supported in this review with only one relevant paper identified, which has a mixed sample of patients with cancer and patients with other terminal illnesses. There was vast literature on the traumatic nature of cancer, and on the process of post-traumatic growth. However, research with patients having experienced trauma prior to the cancer diagnosis was limited. Given the acknowledgement that the experience of cancer is a traumatic event, and that present trauma can evoke memories, images and cognitions relating to trauma experienced in the past, this is an area which is important to research so that patients receive the best care.

The studies in this review that assessed the impact of childhood abuse either focussed upon one type of abuse (sexual abuse – Gallo-Silver & Weiner, 2006) or amalgamated history of sexual, physical or emotional abuse into one indicator (Clark et al., 2010; Clark et al., 2011; Salmon et al., 2007). Again, this limits the ability to compare studies.

There was a lack of quantitative studies empirically assessing the links of early experiences and attachment style with trust. Of those that did employ quantitative methodology, different measures were used meaning that comparisons between studies could not be made. Future studies should aim for consistency in measurement, in order to build upon the research that has already been conducted, and reduce the validity issues associated with using a measurement scale with a new population.

Limitations of the review

This review has made a first step towards identifying and synthesising research investigating patient factors which impact upon the ability to trust the cancer clinician. However, the literature search does have limitations. Whilst two databases were selected and searched, there are other sources that may hold literature relevant to the review which were not incorporated. Only literature written in English was included, which again, may have led to relevant articles being excluded. Definitions of trust vary, and so there was not a clear method of operationalising trust. A previous review assessing the literature in the area of trust in cancer physicians highlighted the inconsistencies in research definitions and measurements of trust (Hillen, de Haes, & Smets, 2011). This review selected terms

which were deemed most likely to retrieve literature related to trust; however, it is not possible to state definitively that all relevant articles were identified.

Future directions

This is a limited area of research, which has focused on breast cancer patients. More research is needed with different cancer samples. With the first steps taken in this area predominantly including breast cancer samples, future research should focus initially upon investigating whether similar results are replicated in other female-only cancers, i.e. gynaecological cancers. This would ascertain whether the current findings are limited to breast cancer patients or whether they extend to other groups of female cancer patients. Following research should include male cancer patients, to clarify whether trust in cancer clinicians is impacted in the same way by attachment style and history of childhood abuse.

Conclusion

This review has interrogated the literature base to identify literature relevant to the question of whether patients' attachment style and adverse experiences are linked to trust in clinicians in cancer care. Consistent findings across a small number of studies with breast cancer samples indicate that history of childhood abuse and insecure attachment style are linked to patients reporting less trust in their cancer clinicians. Further research in different cancer populations should be conducted to ascertain whether the current findings extend beyond breast cancer samples.

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Chapter II: Empirical Paper

Full title[1]

Do childhood experiences and insecure attachment style in women with gynaecological cancer affect trust in care?

Short title

Is trust in gynaecological cancer care linked to attachment?

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[1] This manuscript will be submitted to Psycho-Oncology. Author guidelines presented in Appendix A.

Abstract

Objective: Patients who are diagnosed and treated for cancer vary in how easy they find it to trust their clinician, meaning that clinical interaction is experienced differently by different patients. Adverse experiences in childhood affect attachment style, and therefore the ability to form trusting relationships in adulthood is compromised. This study investigated whether patients' early experiences of childhood abuse and current attachment style were related to their trust in the cancer clinician, measured by how supported patients feel and their preferred level of input into decision making.

Methods: Participants (N=101) who had been diagnosed and completed treatment for gynaecological cancer were recruited from a nurse-led follow-up clinic in a gynae-oncology department in the North West of England. They completed measures assessing current level of distress, childhood abuse, attachment style, clinical relationship and input into decision making. Demographic and medical data were also gathered.

Results: Logistic regression was used to test the relationship of childhood abuse with patients' perceived level of clinician support and preferred level of input into decision making. Patients with a more negative attachment model of self reported poorer perceived support, but abuse was unrelated to perceived support. There was some evidence that patients reporting sexual abuse were more likely to prefer a more active role in making decisions about their care. However, physical and emotional abuse were not linked to decision making and no relationship was found between attachment style and decision making.

Conclusions: There was some evidence that insecure attachment style and previous experience of sexual abuse are barriers to trusting the diagnosing clinician. This study in gynaecological cancer adds to the relatively small research base describing the effect of patient factors on trust in cancer care.

Key terms: cancer, oncology, childhood abuse, trauma, attachment, trust

Do childhood experiences and insecure attachment style in women with gynaecological cancer affect trust in care?

Gynaecological Cancer

Gynaecological Cancer is a term used to describe a group of five types of cancer affecting women: cervical cancer; ovarian cancer; endometrial cancer; vulval cancer; and vaginal cancer [1]. Representing the second most commonly occurring cancer in women globally [2], gynaecological cancer accounted for 19% of all new cancer cases worldwide in 2002 [3]. With regards to the picture at a national level, gynaecological cancer has been found to affect over 2% of the female population in the UK [4], with incidence rates in 2008-2010 found to be 45 per 100,000 [5]. In 1997, there were 6000 deaths in England and Wales as a result of a gynaecological cancer [6], though as diagnosis and treatments advance, the survival rate is improving [1, 7]. Medical management now typically involves more than one line of treatment, combining chemotherapy, radiotherapy and/or surgery with improving outcomes [3, 8].

Psychological Effects

The psychological distress invoked by cancer is widely acknowledged [9]. Patients tend to respond to such a diagnosis with intense fear and helplessness, alongside feelings of vulnerability [10]. The impact of a cancer diagnosis is considered a potential trauma in the DSM-IV [11], and psychological responses include anxiety or depression in up to half of those diagnosed [12]. Difficulties are not always resolved following treatment, with up to a third of patients still reporting elevated levels of distress five years post diagnosis [13]. Clearly, providing appropriate care for all individuals diagnosed with cancer is a priority [14].

In addition to those issues faced by patients with any cancer diagnosis, those with gynaecological cancer tend to face additional difficulties in respect of emotional and relationship problems [15]. It has been noted that there are vast differences between women with gynaecological cancer in how they understand and adjust to the experience of cancer [16], and for those with a history of life stressors and an unsupportive environment, cancer is even more traumatic [17]. It is vital that clinicians providing cancer care are able to respond to the individual needs of those they are

supporting, and have an understanding of the factors which make the experience of cancer especially distressing for some.

Unfortunately, patients with cancer are not always afforded the professional care required to cope with the emotional burden associated with their diagnosis and treatment experiences [18]. Farrell, Heaven, Beaver and Maguire [19] identified that cancer nurses were unaware of 80% of their patients' concerns, instead incorrectly attributing problems to physical health complaints and overlooking psychological distress. Recommendations have been made that alongside physical health, assessments should also address the patient's current support and relationships [20], and women with gynaecological cancer should have access to a specialist nurse who provides information and emotional support [15]. Patients value having contact with a clinician whom they trust [21] and high levels of trust in the clinician can improve the effectiveness of medical care [22]. Thus, ensuring trust in cancer care is in the interests of both patients and professionals and can promote better emotional and medical provision for those with cancer.

The Role of Trust

Trzebinski and Zieba [23] describe trust as the assumption that the world is reliable and predictable in a positive way. In a cancer setting, trust is the patient's confidence that the clinician is working in the best interests [22], and a central characteristic in the working alliance, involving agreement on goals, confidence and support [24]. Thus, trust in the cancer clinician is linked to level of input into decision making [25] and level of clinician support [26]. Increased trust is linked to patients feeling both supported [27] and comfortable for the clinician to make treatment decisions on their behalf [28]. Whilst there is a focus on professionals' ability to support patients, their contribution to the relationship is only part of the story [29]. Different patients trust the same clinician to different degrees, and patient characteristics play a role in how easy a patient finds it to trust their clinician [30]. Cancer patients' trust in the clinician is acknowledged to be based upon patient factors such as experience, assumptions, knowledge and expectations [31], with a good clinical relationship being a key psychosocial need of cancer patients [32]. Further research is therefore needed to clarify the individual factors that determine cancer patients' trust their clinician.

Childhood Abuse and Attachment Style

Experiences of childhood abuse can lead to difficulty in relating to and trusting others in adulthood [33]. In the context of cancer care, this may result in a patient finding difficulty in trusting the clinician owing to their experiences of childhood abuse. Research has demonstrated that cancer patients who report abuse feel less supported by their clinician [29, 34], and Gallo-Silver and Weiner [35] argue that the re-traumatising effect of a cancer journey harms this group of patients' care. For example, in gynaecological cancer patients, those who had been subjected to sexual abuse report increased distress and pain in relation to examinations [36]. This demonstrates the additional difficulties faced by cancer patients who have also experienced childhood abuse, and these challenges can be a barrier to developing a trusting relationship with their clinician.

Bowlby [37] proposed that individuals develop an attachment style based upon early experiences with their primary caregiver, which can lead to a secure attachment if they have received consistently good care in childhood, or insecure in cases where care is poorer. Whilst Bowlby [38] originally proposed attachment to be of categorical nature i.e. either secure or insecure, advances in theory have suggested that individuals have a predominant style, and they also have varying degrees of other attachment behaviours. That is, individuals vary in security on the internal working models of self, and models of other, termed 'dimensions' [39]. Internal working models of the self and of others are constructed in childhood and these are usually found to be stable into adulthood [40]. More securely attached individuals have more positive working models of self and other, and perceive higher levels of support [41]. Recent research has corroborated Bowlby's supposition [37] that attachment processes are activated in times of stress or threat, and confirmed that they are important to consider within a health context and apply to relationships beyond those that are romantic [42]. As such, attachment theory has been frequently used to explain the relationship between those with medical conditions and their clinicians [43].

Previous studies have demonstrated links between early experience of abuse and attachment style. For example Styron and Janoff-Bulman [44] found that individuals who are abused in childhood are more likely to have an insecure attachment style. Insecure attachment increases the stress patients

feel in relation to their illness [45] and worsens affect in end of life cancer patients [46]. Attachment style is strongly linked to trust, where securely attached cancer patients trust their clinician more than those who are insecurely attached [47, 48]. Therefore, it is likely that patients' attachment style mediates the effect of childhood abuse on cancer patients' trust in the attachment figure. The consultation in which the patient was given a diagnosis of cancer by the surgical oncologist is likely to have evoked attachment processes most strongly, with the patient experiencing intense threat, dependence and vulnerability, and having her life in the hands of the doctor [14]. Therefore, the doctor who gave the patient the cancer diagnosis is likely to be the attachment figure in this context, with the patient constructing a mental representation of the doctor which persists over time.

Rationale for Present Study

Patient factors affect how much cancer patients trust their clinician, where higher levels of trust are characterised by feelings of increased support, and increased reliance on the clinician to make treatment decisions. Understanding barriers to trust will enable clinicians to provide effective support and offer appropriate levels of input into decision making to women with varying backgrounds. Whilst similar research has been conducted in breast cancer populations [29, 53], there is a dearth of literature for those women with gynaecological cancer. This study investigated the influence of the patient's early experiences of childhood abuse and current attachment style on gynaecological cancer patients' ability to trust the cancer clinician.

Hypotheses

1) Patients who report a history of childhood abuse will feel less supported by their diagnosing clinician than those who indicate no history of childhood abuse; this will be mediated by attachment style.

2) Patients who report a history of childhood abuse will report a preference for increased participation in decision making; this will be mediated by attachment style.

Method

The study used a between-subjects cross-sectional design. The independent variable was the absence / presence of reported early childhood abuse in the patient's history. The mediating variable was the patient's attachment style (dimensions of self and other). The dependent variables were the patient's rating of trust in the diagnosing doctor as indicated on measures of perceived support and decision making. Distress was included as a covariate.

Sample size

For logistic regression analysis, Harrell, Lee, Califf, Pryor and Rosati [49] suggest a guideline ratio of 10 cases per predictor variable per outcome group. Predictor variables were presence/absence of childhood abuse and attachment style. Two possible covariates were allowed for. Therefore, 10 cases for five predictors equals 50 participants, and with two outcome groups (trusting / not trusting of clinician) this totals 100. Therefore, the overall required sample size was 100.

Participants and recruitment

Participants were females with a primary diagnosis of gynaecological cancer who had completed treatment and were 4 - 18 months post-diagnosis. Participants were attending Liverpool Women's Hospital for an appointment with a Clinical Nurse Specialist providing emotional and practical care to assist the patient's transition to 'survivorship'. Exclusion criteria were if the individual was considered (by a clinician or researcher) to be distressed or too unwell to give informed consent, or was aged 24 or under (due to the different care pathway).

Patients had been referred to Liverpool Women's Hospital where they attended an appointment with a surgical oncologist, who gave them a diagnosis of gynaecological cancer. Following this, they had undergone treatment – surgery, chemotherapy, radiotherapy, hormone therapy, or a combination of these treatments – delivered by the care team. At the end of successful treatment, patients attended the Holistic Clinic as they entered the 'survivorship' period, and were discharged from Liverpool Women's Hospital. It is at the Holistic Clinic that the patients undertook the research, answering questions about the initial consultation, which was between 4 and 18 months

previously. As this was the first contact with the service, and the patient received her diagnosis of cancer in this consultation, she is likely to view this as the key consultation and clinician to keep in mind, as outlined on page 41.

Following ethical approval (IRAS no: 12/NW/0007) Clinical Nurse Specialists working within the identified clinic selected potential participants for the study in line with the criteria specified, and posted out the participant information sheet (Appendix E) at least 24 hours before the patient's appointment. Patients either attended their appointment at the clinic, or had a telephone consultation, at which the Clinical Nurse Specialist asked if they were interested in taking part. Recruitment spanned 52 weeks (April 2012 – April 2013), during which time 234 patients were approached.

Those who attended the clinic and agreed to take part were invited to a private area by the researcher, and given full details of the study. Informed, written consent was obtained and the patients were made fully aware of their right to withdraw. Participants were asked if the researcher could be granted access to their medical notes to check demographic and medical history data. Participants completed questionnaires (see below). The researcher was available if the patient required assistance in completing the questionnaires. Participants were informed of the limits of confidentiality.

Patients having a telephone appointment who agreed to receive more information were asked by the nurse if they would like the researcher to contact them by telephone to give full details of the study. In this telephone call the researcher answered any questions the patient had and, if the patient agreed to take part, the consent form was sent out for her to complete and return in a pre-paid addressed envelope. The researcher's contact details were provided in case patients had any questions. Upon receipt of the consent form, the questionnaires were sent to the patient marked with an ID number to link to the consent form (so that the questionnaire contains no personally identifying information), with a pre-paid return envelope provided. The researcher's contact details were again given in case the patient required guidance or assistance in completing the questionnaires. As the questionnaires were returned separately from the consent form, the questionnaire could be linked to

the patient only by the researcher who had the ID code key. Names were substituted for ID numbers so data was not identifiable.

Materials

The Participant Information Sheet (Appendix E) included why the study was being conducted and why the patient had been chosen to take part. It outlined what the patient could expect to happen if she decided to participate, and stressed that participation was voluntary and she could decline or withdraw later at any point without their healthcare being affected. Confidentiality was outlined, along with risks and benefits to taking part, and contact details for the researchers was made available.

Measures

The questionnaire booklet (Appendix F) contained measures relating to: distress; abuse; attachment; clinical relationship; and decision making.

Distress

The GHQ-12 [50] was used to control for the effect that current distress might have had upon the dependent variables. The measure has good content validity and test-retest reliability [51]. It is widely used with a range of populations, including in medical settings [52]. In line with previous work [53], the scores from the GHQ-12 were re-coded into two categories – distressed or not distressed - with scores of 3 or over indicating that a participant was experiencing distress [54]. In this sample, 46.1% of women reported clinical levels of distress.

Childhood Abuse

To detect the history of abuse in childhood (under 16), two questionnaires were used, both of which have previously been used with cancer populations [55]. The measure of sexual abuse [56] involves five questions asking, for example, whether an older person ‘made you touch them in a sexual way’. Sexual abuse was indicated as present if a patient responded with ‘once’ or more frequently to any one of these five questions. The measure of physical and emotional abuse which was used [57] asks three questions about childhood experiences. Physical abuse was indicated as present if

a patient responded ‘seldom’ or more frequently to either of these two questions; emotional abuse was indicated as present if a patient responded ‘seldom’ or more frequently on the emotional abuse question. Recall bias and under reporting of childhood abuse can occur, which can be difficult to overcome. These issues were addressed by using self-report measures completed anonymously, asking questions about childhood experiences without labelling them as abuse. Previous studies [29, 53] found that using these measures administered in this way sensitively elicited reporting of childhood abuse in cancer samples.

Attachment

There are two dominant methods of measuring attachment in adults: self- report questionnaires and interview techniques. Both are valid methods to measure the construct of attachment [58]. Interview techniques tend to require training to administer, such as the Adult Attachment Interview [59], and focus upon romantic relationships. They require a time commitment of more than 5 hours per participant, not including transcription time [60], thus making them an unsuitable option for this study with a required sample size of 100. Self-report measures were therefore more appropriate for this study, and the questionnaires selected showed good reliability and validity investigating adult attachment in a cancer population [61].

The Relationship Questionnaire [39] requires patients to rate four statements on a 7 point Likert scale as to how much it describes them, each related to an attachment style: secure; dismissing; preoccupied; or fearful. For example, the statement relating to secure attachment states “It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. Patients indicate a number between 1 and 7, from ‘very much like me’ to ‘not at all like me’. The Relationship Scales Questionnaire [62] comprises 30 items, such as: ‘I am nervous when anyone gets too close to me’ and the participant indicates how much it describes her on 5 point Likert scale from ‘very much like me’ to ‘not at all like me’. As in previous research, scores from these two measures were combined to create a composite measure of attachment with increased reliability [53, 63]. The standardised scores from the RQ and RSQ were combined for each individual style (secure, dismissing, preoccupied and fearful), giving a single, combined score for each

attachment style. The dimensions of self and other were then calculated using the following equations: self = (secure + dismissing) – (fearful + preoccupied); other = (secure + preoccupied) – (fearful + dismissing). Convergent validity was significant for attachment dimensions of self and other on the RQ and RSQ, tested with the non-parametric Spearman's Rho, as the RQ scores were not normally distributed (self: N=97, r_s=0.592, p<0.0005; and other: N=99, r_s=0.661, p<0.0005).

The self-report attachment questionnaires were chosen after careful consideration of the available measures. The RQ has good external validity [64], adequate inter-rater reliability of ratings and classifications [65] and Scarfe and Bartholomew [66] found that attachment prototypes have been shown to be stable over an 8 month test-retest period. The RSQ draws from three established self-report attachment questionnaires, and the test-retest reliability over a 3 week timescale is reported to be good [67]. Ognibene and Collins [63] reported that combining the RQ and RSQ increases sensitivity and reliability even further, and so this method was adopted for this study, in line with other research in cancer care [53, 61]. Whilst the measures have been widely used to assess adult attachment relationships, it is acknowledged that the evidence for the validity and reliability of the measures is modest. However, these measures have previously been used within an adult, female, cancer population in the context of clinical relationship, and so they were used in the current study to allow comparison with previous relevant work.

Support

Patients were asked to think about the surgical oncologist who diagnosed them with gynaecological cancer at the hospital, and rate the level of support they received from that doctor in this clinical interaction on two questionnaires. The primary indicator was The Perceived Professional Support Questionnaire – PPSQ [68] which has previously been used in breast cancer research [53]. The PPSQ is a four item measure asking two questions about trust / emotional support, such as: 'Can you trust, talk frankly and share your feelings with them?' and two regarding practical support, such as: 'Do they give you practical help?'. Participants indicate their answer on a five option scale ranging from 'never' to 'always'. In line with previous work [53] responses were scored 0-1-2-3-4 and summed to give an overall score for support. The secondary measure was the Working Alliance

Inventory – Short Form (WAI) [69] which is a 12 item measure. The WAI asks the patient questions about agreement on tasks, goals and emotional bond with the clinician, such as: 'I am confident in their ability to help me' and uses a 7 point Likert scale from 'not at all' to 'completely'. Scores are summed to give an overall measure of support. The WAI and the PPSQ have been successfully used within medical settings, including cancer populations [53]. Inter-correlation of the primary and secondary measures of support was tested using Spearman's Rho, which showed adequate validity ($N=92$, $r_s=0.527$, $p<0.0005$). In line with previous studies in cancer care using these measures, the PPSQ and WAI were re-coded into binary measures owing to the negative skew. Those with the highest possible rating on the PPSQ were deemed to have complete support and formed one group, with participants responding with lower ratings on the measure forming an incomplete support group. This was repeated for the WAI. However, owing to the skew on this scale, it was not possible to use it in the final analysis. On the PPSQ, 41.3% rated that they felt complete support from their diagnosing clinician.

As patient trust in cancer surgeons is generally high [70], it was anticipated that a measure of clinician support administered to patients was likely to have a negative skew. In addition, previous research highlighted that patients experience doctors in a dichotomous way: either wholly supportive and trustworthy, or not [29, 53]. Holwerda et al. [47] also stated that cancer patients made this distinction in the way they trusted clinicians, by either giving their full trust, or not, rather than conceptualising trust on a continuum. Therefore, it was expected that a ceiling effect would be obtained on the PPSQ, and that it would be dichotomised to represent the way in which patients view their doctors, in line with other studies in this area [53].

The PPSQ demonstrated good internal consistency in this study (Cronbach's Alpha = 0.80), implying that it was answered by different participants in a consistent way. It showed good convergent validity with the other measure of support –the WAI ($n=92$; $r_s=0.527$; $p<0.0005$) – suggesting that they were both measuring the same construct. Hill et al. [68] found that the test-retest reliability of the PPSQ was good, with correlation coefficients exceeding 0.6 and reaching significance at the $p<0.01$ level.

Decision Making

To measure preferences for participation in decision making, a five item measure was used as outlined by Sutherland et al. [71]. Originally developed by Strull, Lo and Charles [72], it was adapted for use in cancer populations [71] and requires patients to pick one of five statements to indicate which best corresponds to their preferred level of input into decision making. Participants were re-coded into two groups on the Decision Making questionnaire – those who preferred the doctor to lead on decision making, and those who preferred shared or patient-led decision making. In this study, 67% of participants preferred doctor-led decision making, which was similar to Sutherland et al.'s [71] findings of 63% with cancer patients.

Demographic and clinical information was also collected.

Data analysis

The data was analysed using SPSS version 20. Significance level was set at $p<0.05$. Interrelationships amongst clinical, demographic and psychological variables were explored using Mann Whitney U tests, Independent t-tests or Chi Square test for Independence, as appropriate. Questionnaires with continuous scoring were assessed for internal consistency, with Cronbach's Alpha scores considered acceptable (GHQ = 0.84; RSQ = 0.76; WAI = 0.89; PPSQ = 0.80). Preliminary analyses showed that physical abuse and emotional abuse were not related to the outcome variables, and so these were not used in the final analyses. Therefore, separate univariate analyses were initially used to test the effect of the predictor variables sexual abuse and attachment style, and the covariate distress, on the outcome variables PPSQ and Decision Making, followed by three multivariate analyses to determine the unique effect of each variable and to permit mediation analysis [73].

Results

Sample characteristics

There were 65 eligible patients attending the appointment in person, and 169 eligible patients having a telephone appointment. Of these, there were 33 and 68 completed questionnaire booklets returned respectively. Overall, of those patients asked to participate, 62.8% agreed. Of these patients consenting to take part, 74.8% completed the questionnaires. Some booklets were not fully completed, and so the sample size for analysis was between 96 and 101. See Figure 5 for the recruitment flow chart.

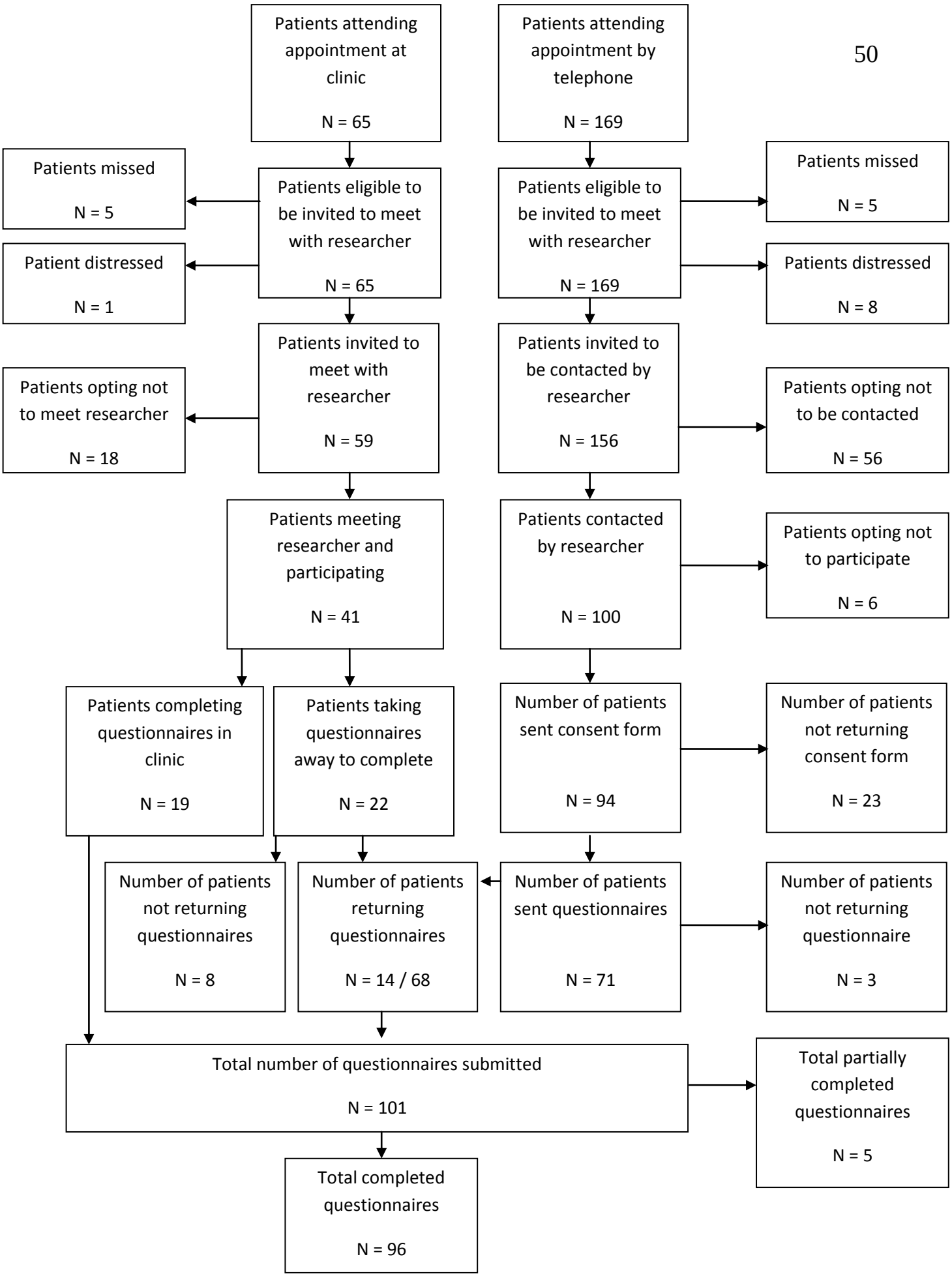

Figure 5. Flowchart showing participant numbers at different stages of recruitment.

Participants were aged 25 to 88 (mean = 58.69; SD = 14.11). Most were married / living with partner and the most frequently reported employment status was retired. Over half of patients had educational qualifications.

Table 3

Patient Demographic Data.

Demographic category	N	Valid %
Relationship status		
Married / living with partner	57	56.4
In a relationship, not living with partner	5	5.0
Divorced / separated	11	10.9
Widowed	13	12.9
Single	11	10.9
Missing data	4	4.0
Total	101	100
Employment status		
Employed	35	34.7
Retired	41	40.6
Unemployed	4	4.0
Not working on health grounds	12	11.9
Homemaker	4	4.0
Missing data	4	4.0
Total	101	100
Living arrangements		
Living alone	23	22.8
Living with others	74	73.3
Missing data	4	4.0
Total	101	100
Qualifications		
Participant has qualifications	67	66.3
Participant does not have qualifications	30	29.7
Missing data	4	4.0
Total	101	100

Nearly half the patients were diagnosed within the centre where recruitment was taking place, with the rest being referred for further investigation and treatment from other areas. Uterine cancer was the most common cancer diagnosis. More than half the cancer diagnoses were staged at 1a or 1b (32.7% and 25.7% respectively) denoting smaller tumour size and less spread than later stages. Over half of patients underwent surgery.

Table 4

Key Clinical Characteristics of the Sample.

Medical information	N	%
Type of cancer		
Vaginal	1	1.0
Ovarian	28	27.7
Vulval	7	6.9
Cervical	19	18.8
Uterine	44	43.6
Missing	2	2.0
Total	101	100
Treatment		
Surgery	54	53.5
Chemotherapy	2	2.0
Radiotherapy	1	1.0
Surgery and chemotherapy	19	18.8
Surgery and radiotherapy	13	12.9
Surgery and hormone therapy	1	1.0
Chemotherapy and radiotherapy	5	5.0
Surgery, chemotherapy and radiotherapy	4	4.0
Missing	2	2.0
Total	101	100

Rates of abuse

Overall, 34 participants identified that they had experienced childhood abuse of some kind. The majority of this group reported more than one type of abuse (N=19). Of those patients recalling one type of abuse, physical abuse was reported by 7 participants; sexual abuse was reported by 4 participants; and emotional abuse was reported by 4 participants. These are displayed in Figure 6.

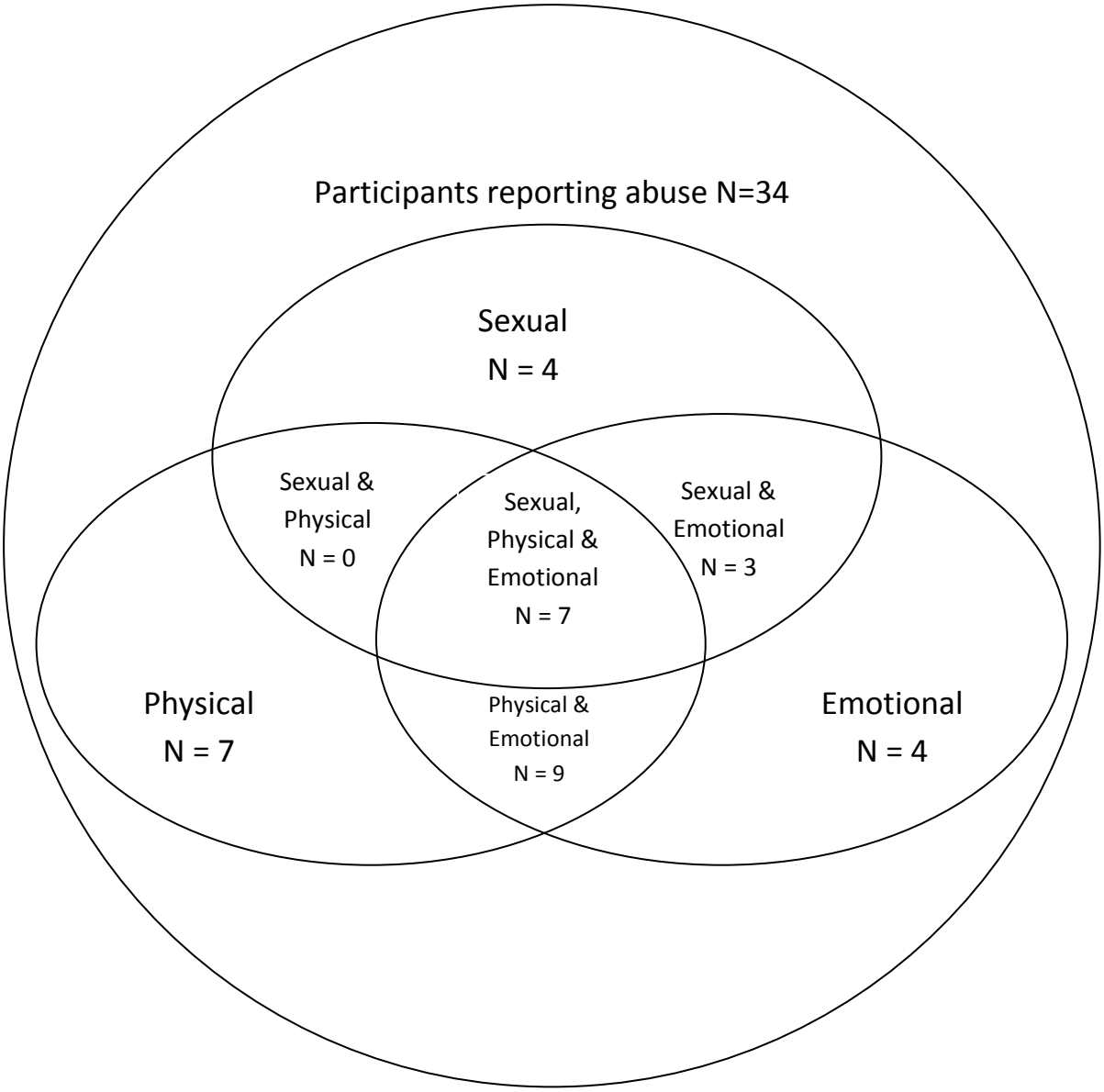

Figure 6. Number of participants reporting different types of childhood abuse.

Data analysis

Preliminary analysis: relationships between predictor, clinical and demographic variables

Patients reporting sexual, physical or emotional abuse were more likely to be distressed: sexual abuse x^2 (1, N=99) =13.20, p<0.0005; physical abuse x^2 (1, N=100) =8.01, p=0.005; emotional abuse x^2 (1, N=100) =12.49, p<0.0005. Those living alone had a more negative model of other compared to those living with others (t=-2.972, df=94, p=0.004). In addition, those not in a relationship had a more negative model of other compared to those in a relationship (t=2.538, df=98, p=0.013). Those who were distressed rated model of self significantly more negatively compared to those who were not distressed (U=638.00, z=-3.961, p<0.0005). Those who reported sexual abuse also rated model of self significantly more negatively than those who did not report sexual abuse (U=328.50, z=-2.64, p=0.008), in addition to model of other (U=338.50, z=-2.58, p=0.010). Patients reporting emotional abuse rated model of self significantly more negatively than those who did not report emotional abuse (U=577.00, z=-2.46, p=0.01), though no effect was found for model of other. There were no relationships between reporting of physical abuse and model of self or other. Younger patients were significantly more distressed than older patients (U=733.500, z=-2.920, p<0.003. Those attending the clinic were more likely to report distress than those opting for a telephone appointment: x^2 (1, N=101) = 7.30, p=0.01. No other significant relationships were found with clinical and demographic variables.

Multicollinearity was not present between sexual abuse, attachment and distress, with tolerance values above 0.1 and VIF values below 10 [74]. Initial Chi Square tests for independence showed that physical abuse and emotional abuse did not have a significant relationship with the outcome variables. Therefore, only sexual abuse was chosen as the predictor variable for the logistic regression, in addition to attachment dimensions of self and other. Because distress was also related to decision making, it was included as a covariate. Response variables were the PPSQ and Decision Making; the WAI was not included in the final analyses owing to the skew of data making the number of cases one category too small.

Relationship between abuse, attachment and support (PPSQ)

Univariate analyses indicated that neither sexual abuse nor distress was related to support. Model of self was related to how much support patients reported in the clinician, with those with more negative models of self rating lower levels of support. Model of other, by contrast, was not related to patients' rating of support. Multivariate analyses were conducted, and the effect of attachment (model of self) remained significant when distress was controlled for. As sexual abuse was not a predictor of PPSQ, there was no need to test mediation of this relationship by attachment, as originally planned.

Table 5

Results of Logistic Regression with PPSQ as Response Variable.

	Univariate analyses			**Multivariate analyses testing for effect of abuse, controlling for distress**			**Multivariate analyses testing for effect of attachment, controlling for distress**			**Multivariate analyses testing for effect of abuse and attachment, controlling for distress**		
Predictor Variables	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI
Distress	1.92	0.14	0.82-4.53	1.36	0.51	0.29-1.85	0.79	0.64	0.30-2.08	1.05	0.92	0.38-2.91
Sexual abuse	0.22	0.06	0.46-1.08	0.27	0.12	0.05-1.40	-	-	-	0.21	0.09	0.03-1.30
Attachment self	1.06	0.01	1.01-1.12	-	-	-	1.07	0.02	1.01-1.13	1.07	0.02	1.01-1.13
Attachment other	1.00	0.94	0.96-1.04	-	-	-	0.98	0.34	0.94-1.02	0.96	0.15	0.92-1.01

Note. The marking - denotes data were not obtained.

Relationship between abuse, attachment and decision making

Univariate analyses indicated that distressed patients were more likely to prefer decision making to be shared or patient led compared to those who were not distressed. Patients reporting sexual abuse were also more likely to prefer shared or patient led decision making than those who did not report sexual abuse. Attachment was not related to decision making preference. In multivariate analyses controlling for distress, the effect of sexual abuse on decision making was no longer

significant. As attachment did not make a significant contribution to the model, it was unnecessary to test for mediation.

Table 6

Results of Logistic Regression with Decision Making as Response Variable.

	Univariate analyses			**Multivariate analyses testing for effect of abuse, controlling for distress**			**Multivariate analyses testing for effect of attachment, controlling for distress**			**Multivariate analyses testing for effect of abuse and attachment, controlling for distress**		
Predictor Variables	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI	Odds Ratios	P	95% CI
Distress	2.54	0.03	1.08-5.97	2.13	0.12	0.83-5.43	2.38	0.08	0.92-6.21	2.00	0.18	0.73-5.44
Sexual abuse	4.70	0.01	1.42-15.50	3.32	0.06	0.93-11.79	-	-	-	2.75	0.14	0.75-10.41
Attachment self	0.97	0.17	0.93-1.01	-	-	-	1.00	0.95	0.95-1.05	1.00	0.96	0.95-1.05
Attachment other	0.96	0.06	0.92-1.00	-	-	-	0.97	0.16	0.92-1.01	0.98	0.29	0.93-1.02

Note. The marking - denotes data were not obtained.

Discussion

Patients with a more positive model of self felt better supported by the clinician, and those reporting sexual abuse tended to prefer a more active role in decision making. However, the specific hypotheses were not confirmed. It was predicted that patients who reported a history of childhood abuse would feel less supported by their diagnosing clinician than those who indicated no history of childhood abuse, and this relationship would be mediated by attachment style. Whilst attachment model of self was linked to perceived support, there was no relationship between abuse and support; hence this first hypothesis was rejected. The second hypothesis proposed that patients who reported childhood abuse would also report a preference for increased participation in decision making, and that this would be mediated by attachment style. There was some evidence that patients reporting sexual abuse were more likely to prefer a more active role in making decisions about their care, providing partial evidence for this hypothesis. However, attachment style was unrelated to decision making. Therefore, this hypothesis was also rejected.

Reporting childhood sexual abuse tended to predict preference for a more active role in decision making, yet does not predict how supported patients feel at diagnosis. Perhaps patients who report childhood sexual abuse, feeling vulnerable due to the diagnosis of cancer and the threat of intrusive treatments this entails, prefer to have more say in their treatment than those who have not experienced abuse and are more comfortable being dependent upon the clinician. In line with previous work [53], this study found that the model of self is linked to ratings of professional support, with patients feeling more negative about themselves feeling less supported than those with more positive models of self. Model of other was not significant, as in Clark et al.'s [53] study, suggesting that patients struggle to feel supported because they are not worthy or incapable, rather than due to negative construction of their clinician.

The relationship between abuse and support, as described by other researchers [29, 53] was not upheld in this study, whilst the relationship between attachment style and support was. The reason for this is unclear. It makes theoretical sense that attachment style – the way in which individuals relate to, and perceive themselves and others – is linked to the perception of support from the clinician. Perhaps the significance of abuse in the patient's experience of current relationships is less marked owing to it being historic, and just one factor that contributes to attachment style. Therefore, variable results between studies might be expected. Another consideration is that other studies have collected data from patients whilst they have been subject to ongoing treatment, in contrast to this study, where patients had completed treatment and were being discharged from the care of the hospital with a good prognosis. It is possible that this time represents a less threatening period for the patient, and as such, memories and emotional needs arising from history of abuse are less salient. This could explain why the link between abuse and support is not present, whilst attachment style is thought to be pervasive, and is measured concurrently, and so the effect of attachment on perceived support remains significant.

This study provides a basis for comparison with other similar studies. Overall rates of abuse found in this study (34%) were comparable to those reported in a breast cancer population, which range between 21% [53] and 41% [29]. Wyatt, Loeb, Desmond and Ganz [75] found that in a breast

cancer population, one in three women reported childhood sexual abuse, compared to 14% in this study with a gynaecological cancer population. Gallo-Silver and Weiner [35] highlight the importance of these experiences in cancer populations. In their study focusing on childhood sexual abuse, all patients reporting these experiences were affected by distressing memories of the abuse during their cancer treatment, and 84% were reminded of traumatic memories which were not in their conscious awareness prior to cancer diagnosis. This research also found that patients reporting abuse are more likely to experience distress, meaning that women with history of abuse find the experience of cancer even more distressing than those without abuse histories.

Younger women were more likely to report distress. This supports the findings from a study [55] which investigated the role of child abuse and age in women's vulnerability to emotional problems after breast cancer surgery, where it was found that psychological problems declined with age. Explanations for younger women reporting more distress include the possibility of less experience of using support systems and coping mechanisms, compared to older women who may have had to face similar challenges in the past. Another argument is that as gynaecological cancer is more common in older women, younger patients could be less suspecting and more shocked by having a cancer diagnosis, and thereby experiencing more distress.

This study investigated whether the experience of childhood abuse or an insecure attachment style inhibited the patient from developing trust in the clinician. As distress might be an independent influence on people's ratings of relationship, it was necessary to control for distress to ascertain the direct effect of abuse and attachment on trust. If distress had not been controlled for in statistical analyses, it would not have been possible to exclude the argument that results reflected the role of distress, rather than the variables in question. It is acknowledged that distress could be the result of a number of factors, including a poor clinical relationship. However, as patients with insecure attachment and patients recalling childhood abuse were significantly more likely to report distress, it was necessary to control for distress in the analysis.

There was a question of appropriateness regarding the available measures to capture perceived level of support. It was necessary to utilise a measure which had been validated with the study population and had demonstrated an adequate level of validity and reliability. The chosen measure (PPSQ) met these criteria [64]. However, the PPSQ is worded in the present tense and was used to refer to the past consultation with the surgical oncologist, which may have been up to 18 months ago. If the content of measures is altered, it is necessary to re-establish the validity of the updated measure and it was outside the scope of this thesis to do this. Therefore, in attempt to overcome this potential issue, participants were reminded to answer the questions on the PPSQ in relation to their consultation with the surgical oncologist before presentation of the PPSQ in the questionnaire booklet. Participants were also asked to name the surgical oncologist they were thinking of when answering the questions, and this was cross referenced against their medical notes. As the research aimed to measure the patient's present construction of the clinician, rather than an objective account of the support received, the PPSQ was a suitable measure. Whilst the consultation was a single, historical meeting, patients received the cancer diagnosis at this time, and so patients were able to remember this interaction and were not confused by the present tense wording of the PPSQ.

Strengths

This study, to the author's knowledge, is the first to examine the role of childhood abuse and attachment style in patients' trust in gynaecological cancer care. It adds to the small, yet significant, body of research addressing this topic in breast cancer. In extending the research to a new population, this study supports the existing link between attachment style and feelings of support from the cancer clinician. It also adds to this literature by highlighting that sexual abuse is linked to preference for input into decision making, another aspect of trust in the clinician. This strengthens the evidence for patient factors having a significant role in the perception of the patient/clinician relationship, and makes a case for further investigation.

Participants reported childhood sexual, physical and emotional abuse and these were considered as separate variables. If all types of abuse had been considered as one indicator of abuse, as in previous studies, the significance of recalled sexual abuse on trust would not have been evident.

This indicates that different adverse experiences may have varying effects on the level of trust in the clinician, and therefore supports the suggestion that the effect of patient factors on the clinician relationship requires further investigation.

Limitations

This study has a number of limitations. The sample size (N=101) is relatively small, which suggests that findings have to be interpreted with caution. The cross-sectional design means that the results are specific to women who are at a particular point in their gynaecological cancer journey. A larger scale study which recruited patients at different points in the cancer journey might have been more revealing. Recruitment took place from a clinic which assists women to prepare for 'survivorship' and so excluded those women whose prognosis was less favourable. Thus, the findings of this study have limited generalisability, and future research should aim to examine the effect of early experiences on trust in patients with varying prognoses.

Selection bias is a problem for this study. Only 68.2% of patients agreed to participate, which means that a proportion of eligible patients were not captured in this research. A self-selecting bias is, therefore, a potential problem for this study; those choosing not to take part could have done so due to anticipating questions around personal relationships and childhood abuse. Whilst it would not have been ethical to ask patients who were distressed to participate (N=9), excluding them from the study means the results do not fully represent the entire target sample. Recall bias of childhood abuse could have had implications upon the findings and cast some doubt over the reliability.

It is generally accepted [40] that attachment style remains constant in the majority of individuals. However, it is possible that a diagnosis of cancer may affect an individual's attachment style. A review of the literature on this topic could not identify research clarifying whether a cancer diagnosis may alter an individual's attachment style. This study implemented a cross-sectional design, and the attachment measures were administered post-diagnosis only, and, therefore, would not capture this possible change. There has been research which demonstrates that attachment style remains constant from 3 to 9 months after cancer diagnosis [47], but the difficulty of measuring attachment

prior to, and post, a cancer diagnosis, makes it difficult to clarify the possibility that the cancer diagnosis itself alters attachment style. However, this study focused on the link between historic abuse, current attachment style and trust in the clinician. Whilst it is hypothesised that patterns of relating are established in childhood, this is not central to the research question: whether the patient's current attachment style, and therefore attitudes to relationships, are linked to their conceptualised level of trust in the clinician.

Whilst key clinical and demographic factors were not found to be confounding variables, it is possible that other variables may have confounded the results. As patients were entering the survivorship period, generally they had been diagnosed with earlier stages of cancer, with 67 participants being diagnosed with Stage 1 cancer. It is possible that stage of cancer may have been a confounding variable, although other research has found that neither disease stage nor prognosis were linked to attachment, abuse, trust or support [47, 53]. Whilst time since diagnosis was recorded, it was not included in the final analyses. It is possible that length of time since receiving the diagnosis may influence the patient's conceptualisation of trust in the clinician, although patients were captured at the same point in their cancer journey.

Clinical and research implications

Patients come to clinical appointments with a variety of previous experiences, some of which are barriers to developing a trusting relationship with the clinician. As such, the difficult interactions faced by clinicians are not merely a failing of their communication skills. Providing clinicians with knowledge that childhood experiences of abuse and insecure attachment style may influence a patient's ability to trust, can give clinicians insight into why patients respond differently to them when the level of care they provide remains constant. This could lead to clinicians adopting relational patterns which are more responsive to the patient's needs and conducive to increasing patients' trust.

The research has highlighted that certain groups of women are more likely to experience distress. Women who reported abuse and younger women were more likely to report clinical levels of

distress. These are important findings for clinicians in being vigilant in detecting distress and supporting women across the age span and with varying childhood experiences.

This study has provided preliminary evidence that patients with gynaecological cancer reporting childhood abuse and an insecure attachment style find it more difficult to trust their diagnosing cancer clinician. Whilst these findings concur with existing knowledge generated by studies with breast cancer samples, the small gynaecological cancer sample in this study (N=101) and cross-sectional design limits the ability to generalise to other cancer patients across the cancer trajectory. Thus, future research should aim to replicate this study with much a larger sample, including patients with different cancer diagnoses at different stages in treatment, to confirm the findings ascertained in this study and to extend our knowledge in this area.

A link has been established between childhood abuse and attachment style with trust in the surgical oncologist. However, it is unlikely that patients perceive all clinical relationships in an identical way. Future research should attempt to examine the heterogeneity across clinical relationships, and assess whether the patient factors identified as important for trust in the surgical oncologist are also linked to trust in other medical staff. A firmer understanding of patient trust across clinical relationships, and whether this is consistent or variable across staff groups, could indicate ways in which to promote trust in care.

Conclusion

Being diagnosed with cancer is understandably a very difficult time for an individual. Therefore, it is important that the patient trusts that the clinician is working in her best interests, and that she feels adequately supported by the clinician. This study has found tentative evidence that gynaecological cancer patients reporting childhood sexual abuse prefer a more active role in decision making about their care. In addition, those who tend to feel more negative about themselves in relationships felt less supported by the clinician. Thus, this research has aided understanding of potential barriers to patients developing trust in care, which will provide useful information to clinicians.

Conflict of interest

The author does not declare any conflict of interest.

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Chapter III: Concluding Discussion

Expanded Discussion

Participant Feedback

Future Research Proposal

This chapter provides a summary of the work done, and discusses findings in relation to other research. Methodological aspects are considered, and implications regarding clinical practice and research identified. Following this, the feedback which was provided to participants is presented. Finally, a research proposal is outlined, building upon the findings of the research described in this volume, and highlighting ways in which it could bridge the remaining gaps in knowledge.

Expanded Discussion

Summary

This study adds to the current literature on patients' relationship with cancer clinicians, and supported the idea that patient factors play a role in the ability to trust doctors. Based upon previous research that conceptualises the patient/clinician relationship as an attachment process (Wright, Holcombe, & Salmon, 2004), this study proposed that patients' past experiences of relationships would shape their trust in the cancer clinician. Past findings suggested that childhood experiences of abuse can lead to an insecure attachment style, which, in turn, impairs the trust that individuals have in close relationships (McWilliam, Brown, & Stewart, 2000). This research hypothesised that patients who reported a history of abuse would trust their cancer doctor less than those who did not report a history of abuse, and that this association would be mediated by attachment style. Trust was operationalised in line with other studies in cancer care (Hillen et al., 2012), as feeling supported and preferring decision making be directed by the cancer clinician. As there is a number of studies conducted in breast cancer samples (Clark, Beesley, Holcombe, & Salmon, 2011; Salmon et al., 2007), this study aimed to extend those findings to a new sample: gynaecological cancer patients.

Whilst specific hypotheses were not confirmed, this study has provided some evidence that gynaecological cancer patients with a more negative model of self perceive less support from the clinician. The findings also suggest that patients reporting sexual abuse prefer a more active role in making decisions about their care. To the author's knowledge, it is the first study of this kind with a gynaecological sample. Its findings have partially supported work previously carried out in breast cancer samples, which indicated that experiences of childhood abuse and attachment style are linked to the patients' ability to trust doctors (Clark et al., 2011; Holwerda et al., 2013).

Subsidiary findings

In addition to the main findings, other results of interest were found in relation to distress. Patients who reported sexual, physical and/or emotional abuse were more likely to be distressed. This supports previous research which has established that adverse experiences in childhood can lead to more distress in cancer patients (Goldsmith et al., 2010). Younger women were also found to be more distressed, in line with Salmon et al.'s (2006) work in breast cancer samples. Perhaps younger women with fewer years of life experience than older women have not developed as effective coping strategies, resilience, or means of emotional regulation. Alternatively, as cancer is more prevalent in older women, it could be that younger women are more shocked by the diagnosis, causing more distress. Patients with a negative model of self were found to be more distressed than those with a more positive model of self, suggesting that attachment style and distress are linked. However, unpublished work which found the same result in breast cancer patients (Harding, 2011) suggests that this could be owing to measurement issues, as the distress and attachment measures may capture similar constructs. Finally, a methodological consideration relating to distress levels: patients were not asked to participate if they were deemed distressed. Whilst only nine patients were excluded on this basis, the study may indicate an overall artificially lower level of distress in this gynaecological sample. As 46.1% of women in this sample reported clinical levels of distress, this highlights the need for clinicians to routinely assess patients for levels of distress in cancer patients. This finding underlines the importance of a trusting clinical relationship, which can buffer against distress in cancer care (Holwerda et al., 2013).

A strength of this study was that different types of childhood abuse were investigated: sexual, emotional and physical. Many studies in this area treat the reporting of any type of childhood abuse as one variable (e.g. Clark, 2011; Salmon, 2007) or examine just one type of abuse (e.g. Gallo-Silver et al., 2006). This enabled differences between these groups of patients to be identified, with childhood sexual abuse being important in relation to trust in the cancer clinician, whilst the other types of abuse were not. In descriptive statistical analyses, sexual abuse was linked to more negative model of self and model of other, emotional abuse was linked to more negative model of self, whereas physical

abuse did not appear to link to attachment. Salmon et al. (2006) and Hall et al. (2004) have both found that different types of adverse childhood experiences are linked to different psychological problems reported in later life, supporting the idea that different types of childhood abuse have different effects on an individual. Thus, this study has made a small contribution to discerning the factors which are linked to different types of childhood abuse, and future research should continue to regard these experiences individually.

Clinical implications

The findings of this study, along with other similar studies (Clark et al., 2011; Salmon et al., 2007), could inform communication training for doctors. Demonstrating the role of patients' previous experiences in how they perceive the patient/clinician relationship is helpful to guard against a communication skills model that does not take patient factors into consideration (Bensing & Verhaak, 2004). It is evident from emerging research in this area, that there is not one 'correct' way to interact with patients, and the teaching of communication skills should emphasise how patients' previous experiences may shape how they want doctors to respond to them. This research provides support for the idea put forward by Dzul-Church, Cimino, Adler, Wong and Anderson (2010), that clinicians should consider the ways in which traumatic histories may influence the patient experience, and that patients who have experienced adversity may require a different clinician approach. Pegman et al. (2011) found that variations in the sense of alliance in cancer clinicians depended upon different patient factors, rather than differences between clinicians. Therefore, communication training should seek to help clinicians understand the influence of patient factors on the ability to form trusting relationships, and develop behaviours which best respond to individual patients' needs.

This study has contributed to the literature on decision making. There is a tendency for healthcare policy to treat patients as an homogenous group, and to regard shared decision making as the preferred model within cancer care (Charles, Redko, Whelan, Gafni, & Reyno, 1998). However, in line with previous findings (e.g. Wright, Holcombe & Salmon, 2004; Meyer, 1997), this study found that patients preferred the doctor to take the lead on making decisions about treatment. This supports other research in cancer populations that suggest when patients are facing a life-threatening illness,

they do not want to have the burden of making decisions about their care (Butow, Maclean, Dunn, Tattersall, & Boyer, 1997; Degner & Sloan, 1992). This adds to the body of research on decision making preference, providing further support for the argument that prevalent ideas in clinical practice should be evidence based and theoretically sound (Salmon & Young, 2005).

The findings from this research have supported the clinic in which recruitment took place. This study has demonstrated that patients who attend their appointment in person were more distressed than those who have a telephone appointment. This tends to suggest that being offered a choice in attendance type is working for this sample: women who are feeling more distressed and potentially requiring additional support attend the appointment in person to meet with the clinician, and those experiencing less distress opt to have the consultation by telephone. Thus, it could be suggested that the clinic continue to offer both telephone and clinic-based appointments, in order to meet the needs of both groups of women.

Patients with a negative model of other are more likely to live alone and not be in a relationship, and, in addition, they are more likely to experience distress. It could be possible that these patients are lacking social support, thus experience more distress, and so clinicians should be vigilant to the needs of patients who lack support outside the clinical relationship.

The findings obtained in this study only provide tentative evidence that patients who have experienced childhood sexual abuse or have an insecure attachment style may find it more difficult to trust their clinicians. As such, the results of this study alone are not strong enough to support recommendations being made to clinicians regarding how they should respond to those with attachment difficulties or a history of sexual abuse.

There remains an ethical dilemma associated with asking about individuals' previous experiences of abuse (Becker-Blease & Freyd, 2006). Whilst this study adds to the increasing literature on the link between childhood abuse and negative experience of the clinical encounter, it remains unclear how and when clinicians should ask about these issues. Recent focus group research with breast cancer patients has indicated that they would like to be given opportunities to disclose

abuse, rather than being asked 'out of the blue', but patients want to know that clinicians are equipped to manage disclosures that might be made (Clark, Holcombe, Fisher & Salmon, in press). Consideration needs to be given to whether hospital settings are adequately set up to manage disclosures in a safe way for patients, and further research with other cancer groups is needed to clarify the best way for clinicians to implement this emerging knowledge in the clinical setting.

Considered alongside other research findings and theoretical literature (e.g. Clark et al., 2011; Salmon & Young, 2005), tentative suggestions can be made regarding how clinicians can best respond to those patients with insecure attachment styles. Educating clinicians on attachment theory and the different models of self and other can help them to understand the sometimes confusing behaviour of patients with attachment difficulties. For example, those who appear to be care-seeking will need a different response from those who exhibit avoidant or defensive relational styles. Remaining consistent, voicing availability and being responsive to the patient's needs are likely to be useful strategies for developing trusting relationships, particularly with those who have had adverse experiences, or find it difficult to relate to others. Through education on attachment theory, clinicians can be made aware that struggles within the clinical encounter are not necessarily a communication failing on their behalf, but may lie with the wealth of previous experiences and the style of interaction that the patient brings with them to the consultation.

Methodological considerations and future directions

This study has taken a first step in examining the link between childhood abuse, attachment style and trust in the clinician in gynaecological cancer patients. It adds to the small number of studies in this area in breast cancer patients. However, there are a number of potential issues for this research, which future research should aim to address.

Following on from those studies conducted in breast cancer (Clark et al., 2011; Salmon et al., 2007), this study specifically recruited gynaecological cancer patients as a first step in examining childhood abuse, attachment and trust in a new sample. Whilst this adds to and partially supports the existing literature in breast cancer, it means that – to the author's knowledge – no research of this type

has been conducted with other cancer samples. Therefore, it is uncertain whether these findings will generalise to other cancer samples, and, more specifically, male cancer patients. Shields et al. (2000) found that the link between attachment, depression and adjustment to cancer was stronger in female cancer patients than for male patients. This might suggest that gender differences could be found in the relationship between childhood abuse, attachment and trust. Lilliehorn (2010) states that it is likely that the need for attachment found in female cancer patients would also apply to male patients. However, owing to a lack of research with male cancer samples, this cannot be asserted. Large scale research should aim to replicate the studies conducted in breast, and gynaecological cancer patients, in different tumour groups including both male and female cancer patients. This would ascertain whether abuse and attachment style have the same association with trust in both males and females, and across cancer groups.

This study selected patients at one time point – upon completion of their treatment and at the start of 'survivorship'. This means that the ability to generalise findings to patients at different points of the treatment trajectory, and with varying prognoses, is limited. Whilst Holwerda et al. (2013) found that trust was stable at 3 and 6 months after diagnoses, this study was limited to a breast cancer sample. In order to obtain a more comprehensive understanding of the link between childhood abuse, attachment style and trust in the clinician in cancer patients, future research should aim to recruit patients at different points on the treatment trajectory. This would enable the identification of differences in trust at different time points, such as immediately after diagnosis when the prognosis is less certain.

Selection bias was a potential problem for this research. We do not have information on the group of women who declined to take part, and so we cannot discern whether the findings obtained are true of all gynaecological cancer patients who are entering the survivorship period. For ethical reasons, participants are not required to give a reason if they choose not to participate in the research, and so it is unclear as to the reasons for non-participation. This is a limitation of the research.

This study implemented measures which have been found to be reliable and valid with cancer patient samples. Hillen et al. (2011) highlight the difficulties of introducing measures to new samples, and in utilising measures which have been used successfully in similar studies, tentative comparisons can be drawn between studies. Overall rates of abuse found in this study (34%) were similar to those reported in breast cancer samples, which vary from 21% (Clark et al., 2011) to 41% (Salmon et al., 2007). This is similar to those reported in the general population, although Shaw (2004) suggests that this is likely to be under reported and the true extent of abuse is unlikely to ever be known. The majority of patients (67%) preferred doctor-led decision making, which was similar to another study carried out with cancer patients (Sutherland, Llewellyn-Thomas, Lockwood, Tritchler, & Till, 1989). However, the self-report nature of the measures implemented is sometimes criticised. Some authors argue that self-report attachment measures do not capture the unconscious processes that more in-depth methods tap into. Recall bias and social desirability are argued to affect self-reporting of abuse. However, there is no clear evidence that more complex measures are any more valid and reliable than more basic measures (Salmon et al., 2006). The measures were chosen to: provide comparisons to previous studies; enable swift completion so patients were not dissuaded to participate; and be completed anonymously to lessen the effect of social desirability.

Whilst information about patients' qualifications and employment was gathered, data on socio-economic and ethnic background were not gathered in this study. Previous research has identified differences in the level of trust depending on income, with rural low income cancer patients more likely to have high levels of trust and rely completely on the doctors' recommendations at times (Coyne, Demian-Popescu, & Brown, 2004). White patients have also been found to report higher trust in cancer clinicians than patients from other racial backgrounds (Hillen, de Haes, & Smets, 2011). Further research should include information on socio-economic status and ethnic background, to clarify the possible role of these factors in trust in the cancer clinician.

The literature review identified that there are varying definitions of trust across studies conducted in cancer care, with some studies neglecting to even define their use of this concept (Hillen et al., 2012). In addition, different methods of measurement across studies prevents comparisons to be

made. In this study, differences were found between the support and decision making measures which suggests that they were capturing different aspects of trust. Future research should attempt to clarify the definition and operationalisation of trust, to give a clearer picture of different aspects of the concept of trust.

Further research could explore what clinicians bring to the relationship, such as their experience of trauma (Cunningham, 1997), attachment style (Hawkins, Howard, & Oyebode, 2007) and the impact of gender (Kim & Carver, 2007). Insecure attachment in nurses has been linked to higher stress levels in carrying out their duties (Hawkins et al., 2007) and ineffective care givers of cancer patients can be identified by their attachment style and gender (Kim & Carver, 2007). More research into the contribution of clinician's previous experiences and gender to the patient/clinician relationship would clarify the relative contributions of both clinician and patient, further understanding barriers to a trusting relationship.

Participant feedback

Dear patient,

RE: Do early experiences and insecure attachment style in people with gynaecological cancer affect trust in care?

Between April 2012 and April 2013, we asked women who had been treated for gynaecological cancer to take part in this study. You were asked to participate, and kindly agreed to help with the research. This research is now complete, and I am writing to you because you told me that you would like to have a summary of our findings.

Background

As you know, this research concerned how easy or difficult it is for women who have been affected by gynaecological cancer to form trusting relationships with their doctors. We wanted to find out about the different experiences women had, and if these affected trust in care. Women with gynaecological cancer who were attending the 'holistic clinic' were asked to take part. We recruited for one year and a total of 101 women participated.

Main findings

We asked questions about childhood experiences. A third of women reported having experienced childhood abuse of some kind. This is a similar number to what is found in the general population. Women who recalled experiencing abuse were somewhat more likely to be experiencing distress at the time that they completed the questionnaire.

We also asked questions about your relationships with other people, and how you feel about these. Women who generally had a more positive view of how others see them were more likely to feel fully supported by their doctor.

Participants varied in how much input they would like into making treatment decisions. Some wanted to make the decisions about their treatment, whereas others preferred that the doctor took the

lead and decided for them. However, which view women had did not seem to be related clearly to their childhood experiences or their feelings about relationships.

In summary, we concluded that women who have positive experiences of relationships in general seem to find it easier to form trusting relationships with their cancer clinician.

Implications

This research suggests that women who have positive experiences of relationships are likely to trust their cancer clinician more easily, whereas those with more negative experiences may find it more difficult. The role of the clinician is very important in helping establish a trusting relationship, and this research can help clinicians understand the specific challenges that some women face.

Participants varied in their preferred level of input into decision making. Doctors need to bear in mind that patients vary on how involved they would like to be in making treatment decisions, and doctors should continue to involve the patient depending upon the individual's preference.

What will be done?

- Findings from this study will be shared with clinical staff to help them consider the impact of patient factors on clinical care
- A report of this study will be submitted for publication in a journal, in the hope that the findings of this research can reach more clinicians and have a positive impact upon care

Thank you for taking part in this research. We very much appreciate your contribution.

If any part of this feedback has raised issues for you, and you would like to talk to someone about this, please don't hesitate to contact your Clinical Nurse Specialist at the hospital on (NUMBER). Alternatively, you can speak to your GP.

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Research Proposal

Title

What is the role of childhood abuse and attachment style in trust in cancer care?

Aims

Trust in cancer clinicians is characterised by a good patient-clinician relationship and patients accepting treatment decisions recommended by the doctor. Recent research with gynaecological cancer patients has provided tentative evidence that patient factors - early experiences of childhood abuse and attachment style – may have an influence upon on patients' ability to trust the key clinician. This association has also been noted in studies including a breast cancer patient sample. The proposed study will attempt to replicate this finding with a large sample (n=1000), to see whether the results extend to other tumour groups, including male cancer patients, and are consistent at different points of the treatment trajectory. Understanding the factors which contribute to a trusting relationship can inform the delivery of cancer care, and improve patient experiences.

Rationale

Incomplete trust in cancer clinicians can lead to non-adherence to treatment, poorer health outcomes and difficulties in clinical interaction. Previous research has identified that in breast and gynaecological cancer samples, patients' previous experiences of relationships is linked to the level of trust they have in their cancer clinician. There are gaps in our understanding of this: only breast and gynaecological cancer patients have been sampled; it is uncertain how trust changes pre- and post-cancer treatment; and it has not been investigated whether these findings extend to male cancer patients. The proposed study will build upon the existing research in this area, and investigate the role of patients' experiences of childhood abuse and attachment style in trust in cancer care. It will add to the research base by including patients with various cancer diagnoses, male patients, and patients at pre- and post- treatment stages. This will develop a clearer picture of the role of childhood abuse and attachment style in trust in the cancer clinician, and help to establish the best ways in which clinicians should respond to patients to enhance feelings of trust at this distressing time.

Introduction

Being diagnosed and treated for cancer is a difficult and stressful experience. Patients deserve to feel adequately and sensitively supported throughout their cancer journey. Whilst informal support, in the guise of family and friends, can provide some comfort, it is often not sufficient or available. Therefore, formal support provided by healthcare professionals is of utmost importance, with positive and trusting clinical relationships having a number of benefits, such as reducing patient distress and improved patient satisfaction with care (Brennan, 2008). Unfortunately, evidence suggests that some patients struggle to completely trust their clinician, and research to ascertain what prevents these patients accessing support would be beneficial (Clark, Beesley, Holcombe, & Salmon, 2011).

In cancer care, patients need to trust the clinician to make treatment decisions on their behalf for the best possible outcome (Hall, Dugan, Zheng, & Mishra, 2001). A review of the existing literature conducted on the area of patients' trust in cancer care (Hillen, de Haes, & Smets, 2011) concluded that more research should be carried out in this area. Whilst studies outlined the clinician's contribution to a trusting relationship, including technical competence, honesty and patient-centred behaviour, further research is needed to clarify patient factors affecting trust in the clinician.

The research study presented in this volume has provided preliminary evidence that patients with gynaecological cancer reporting childhood abuse and an insecure attachment style find it more difficult to trust their cancer clinician. These findings support existing knowledge provided by studies with breast cancer samples, adding to the small research base in this area. In addition, it has also highlighted areas of need for future research to focus on. The small gynaecological cancer sample in this study (N=101) limits the ability to confidently generalise to patients with other cancer diagnoses. Whilst differences in trust were found between patients reporting sexual abuse compared to no sexual abuse history, these findings did not extend to physical and emotional abuse. This contradicts research which indicates that any type of childhood abuse is linked to feeling supported by the clinician (Clark et al., 2011) thus this inconsistency needs to be explored. Previous findings also suggest that different adverse experiences in childhood may be linked to different psychological phenomena in later life (Hall et al., 2001; Salmon et al., 2006) indicating that they shape individuals in different ways. This

provides a rationale for different types of abuse having varying effects on how patients perceive trust in their cancer clinician. Research should aim to clarify this with larger samples, to provide statistical power to look at differences in subtypes of abuse. In addition, patients in this study were recruited at one time point – on completion of treatment – and so this does not give a picture of the influence of attachment and childhood abuse on trust across the cancer trajectory. To the author's knowledge, all research in this area has included female cancer patients. Therefore, it is not certain whether the patient factors identified would shape trust in the clinician for male patients in the same way that has been identified for female patients. This research proposal aims to address these uncertainties.

Main hypotheses

The key aim is to replicate findings that childhood abuse and attachment style shape the level of trust cancer patients have in their clinicians in a much larger sample. Therefore, the main hypotheses are:

1a) Patients who report a history of childhood sexual abuse will report lower levels of trust in their surgeon than those who indicate no history of abuse.

1b) Patients who report a history of childhood physical abuse will report lower levels of trust in their surgeon than those who indicate no history of abuse.

1c) Patients who report a history of childhood emotional abuse will report lower levels of trust in their surgeon than those who indicate no history of abuse.

2) Patients who are insecurely attached will report lower levels of trust in their surgeon than those patients who are securely attached.

Exploratory research questions

In addition to replication of previous studies in this area, this research aims to add to current knowledge by investigating whether differences in stage of treatment or gender are linked to trust.

1) Are different treatment stages (pre- or post- surgery) significantly associated with levels of trust?

2) Are there significant differences between males and females in levels of trust?

Design

This study will be quantitative and implement and a cross-sectional, between-subjects design. The predictor variables will be: absence / presence of reported early childhood abuse in the patient's history; and patient's attachment style (secure or insecure). The outcome variables will be: the patient's rating of support from the surgeon; and patient's preferred level of input into decision making.

Participants

Participants in this study will be patients with a diagnosis of cancer: lung, colon, breast, gynaecological, prostate or testicular cancer. Participants whose treatment included surgery will be recruited, including those who are pre-surgery and those who are post-surgery. Recruitment would capturing patients from hospitals providing surgery for the above types of cancer. Patients would be excluded if they were considered to be too distressed or unwell to give informed consent (by a clinician or researcher), has more than one type of cancer, or is aged under 18.

Sampling

For the type of analyses that will be implemented in this study (logistic regression), Harrell, Lee, Califf, Pryor & Rosati (1984) suggest a guideline ratio of 10 cases per predictor variable per outcome group. However, as this is aiming to be large scale research, with more power than those studies previously carried out, a larger number of cases per predictor will be used. Demaris (1992) recommends 50 cases per predictor.

Predictor variables will be childhood abuse (sexual, physical and emotional) and attachment. Six covariates will be allowed for, including emotional distress, gender, treatment stage, age, type of cancer, plus one other possible covariate. Therefore, 50 cases for ten predictors equals 500 participants, with two outcome groups (trusting / not trusting of clinician) equals a minimum of 1000 participants.

Ethical approval

The proposed research will be submitted to the Integrated Research Application System (IRAS) and Trust R&D approval will be sought at the recruiting sites.

Measures

Participants will complete self-report questionnaires. Measures will be used to gather information on level of distress, childhood abuse (sexual, physical and emotional), attachment style and trust in the clinician. Measures successfully utilised in breast and gynaecological cancer samples that have shown acceptable levels of reliability and validity will be used. This will also enable comparisons to be drawn between the studies. Clinical and medical information will also be collected, capturing: gender; age; employment status; relationship status; ethnicity; type and stage of cancer; and treatment stage (pre- or post- surgery).

Proposed analysis

The outcome variables will be assessed for distribution and in line with previous work (e.g. Clark et al., 2011), will be re-coded as binary variables. Binary logistic regression will be used to test the influence of each type of childhood abuse (sexual, emotional and physical) on the outcome variable of trust in the clinician. This will be repeated to test the influence of attachment style on the outcome variables. Distress, age, gender, pre- or post- treatment and cancer type will be included in the analyses to examine their relative contributions to the models. Other covariates identified as significant will be controlled for.

Overall Conclusion

Being diagnosed and treated for cancer is likely to be a distressing experience. A trusting clinical relationship can buffer the negative effects of the stress that cancer causes in patients. This thesis has examined patient factors which can act as barriers to trust in the cancer clinician. Tentative support was found for patients' experiences of childhood sexual abuse and insecure attachment style impairing trust in their surgical oncologist. This study contributes to a relatively unexplored area of research, making an unique contribution to the evidence base by investigating these factors in a gynaecological cancer patient sample. The research has aided understanding of potential barriers to patients developing trust in care, which will provide useful information to clinicians in learning how to respond to individual needs.

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Appendices

Appendix A Author guidelines for Psycho-Oncology

This text box is where the unabridged thesis included the following third party copyrighted material:

http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1611/homepage/ForAuthors.html

Appendix B Search strategy

Area Reviewed	Search Terms	Psyc INFO # Hits	Web of Science # Hits	Total # Papers	# Unique Papers Within Search	Relevant at Title Level	Relevant at Abstract Level	Duplicates Removed Between Searches	References
Trauma	Trauma AND decision making AND (cancer OR oncol*)	5	43	48	45	14	0	8	(Clark, Holcombe, Beesley, & Salmon, 2010; Clark, Beesley, Holcombe, & Salmon, 2011; Dzul-Church, Cimino, Adler, Wong, & Anderson, 2010; Gallo-Silver & Weiner, 2006; Holwerda et al., 2013; Lilliehorn, Hamberg, Kero, & Salander, 2010; Meyer, 1997; Pegman, Beesley, Holcombe, Mendick, & Salmon, 2011; Salmon & Young, 2005; Salmon et al., 2007; Salmon & Young, 2009; Wright, Holcombe, & Salmon, 2004) **Total included: 12**
	Trauma AND trust AND (cancer OR oncol*)	5	6	11	11	5	1		
	Trauma AND relationship AND (cancer OR oncol*)	74	219	293	271	25	1		
Abuse	Abuse AND decision making AND (cancer OR oncol*)	6	29	35	34	5	1		
	Abuse AND trust AND (cancer OR oncol*)	11	11	22	21	3	2		
	Abuse AND relationship AND (cancer OR oncol*)	96	146	242	227	23	1		
Attachment	Attachment AND decision making AND (cancer OR oncol*)	1	6	7	7	5	3		
	Attachment AND trust AND (cancer OR oncol*)	9	7	16	13	8	6		
	Attachment AND relationship AND (cancer OR oncol*)	45	185	230	212	33	5		

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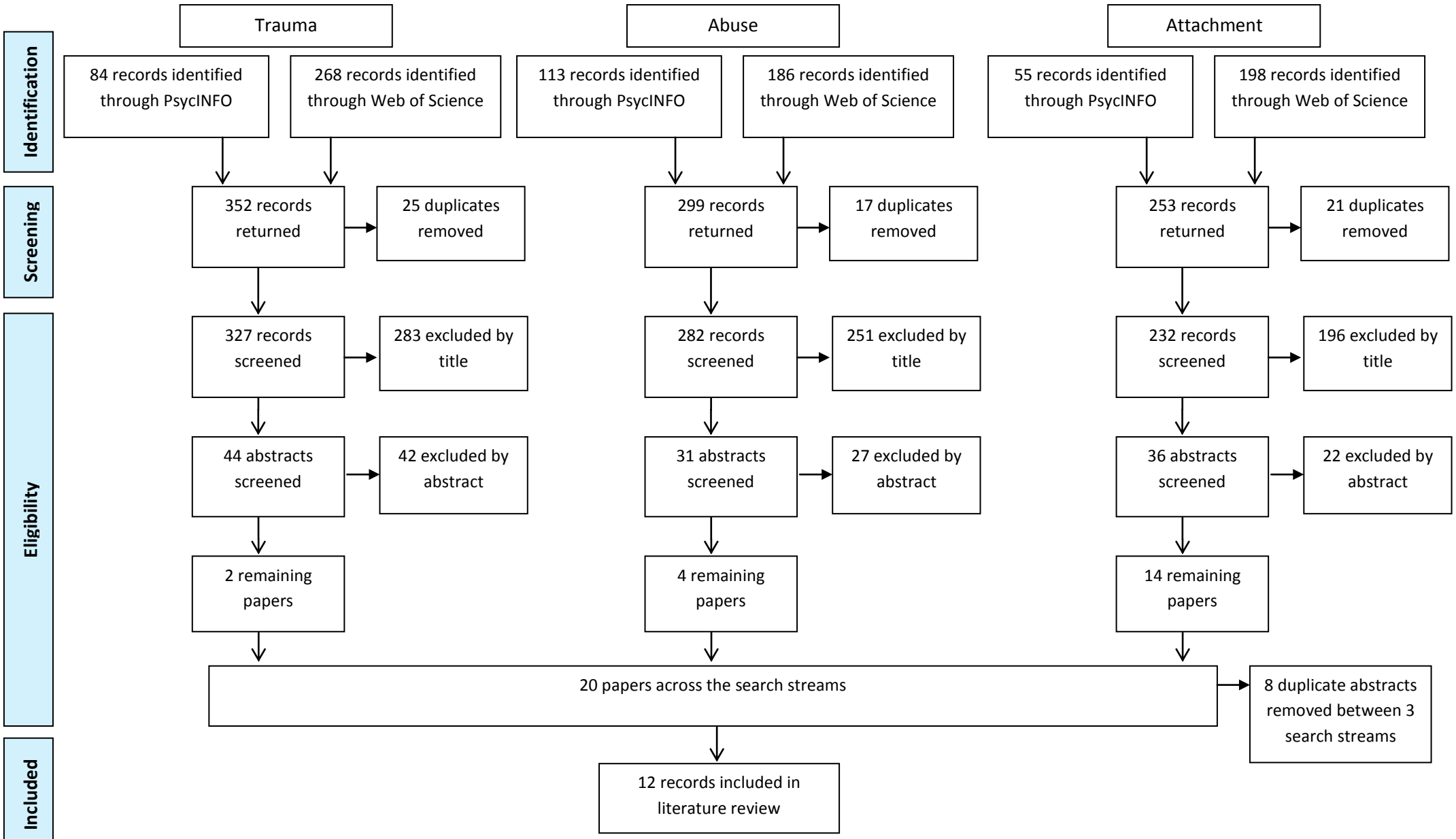
Appendix C Literature search flow diagram



Based upon: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *Preferred Reporting Items for Systematic Reviews and MetaAnalyses*: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

Appendix D Critical reviews of empirical papers

Section under Review	Paper 1	Paper 2	Paper 3	Paper 4	Paper 5	Paper 6	Paper 7	Paper 8
1) Abstract – study's design; balanced summary	✓	×	✓	✓	✓	✓	✓	✓
2) Scientific background and rationale	✓	×	✓	✓	✓	✓	✓	✓
3) State objectives and hypotheses	✓	×	✓	✓	✓	✓	✓	✓
4) Key elements of study design	×	×	✓	✓	✓	✓	✓	✓
5) Setting, location, dates, recruitment, data collection	✓	✓	✓	×	×	✓	×	×
6) Participants, sources and methods of selection	✓	✓	✓	✓	✓	✓	✓	✓
7) Variables clearly defined	N/A	N/A	✓	✓	✓	N/A	N/A	✓
8) Methods of measurement	✓	×	✓	✓	✓	✓	✓	✓
9) Efforts to address bias	×	×	×	✓	✓	✓	✓	✓
10) Justify study sample size	✓	×	✓	×	×	✓	×	×
11) Explain handling of quantitative variables	N/A	N/A	✓	✓	✓	N/A	N/A	✓
12) Describe statistical methods, missing data, loss to follow up	N/A	N/A	✓	✓	✓	N/A	N/A	✓
13) Outline number of participants at each stage	✓	×	✓	✓	✓	✓	✓	✓
14) Participant characteristics explained	✓	✓	✓	✓	✓	×	×	✓
15) Reporting of outcome data	✓	×	✓	×	✓	✓	✓	✓
16) Presentation of results, categorisation of variables	N/A	N/A	✓	✓	✓	N/A	N/A	✓
17) Describe other analyses	N/A	N/A	✓	✓	✓	N/A	N/A	✓
18) Summarise results in light of study objectives	✓	✓	✓	✓	✓	✓	✓	✓
19) Discuss limitations, bias, imprecision	✓	×	✓	✓	✓	×	×	✓
20) Cautious overall interpretation	✓	×	✓	✓	✓	✓	✓	✓
21) Discuss generalisability of results	✓	×	✓	×	✓	✓	✓	✓
22) Give source of funding	✓	×	✓	×	✓	✓	✓	×

Critical Review – Paper 1

Citation	Dzul-Church, V., Cimino, J. W., Adler, S. R., Wong, P., & Anderson, W. G. (2010). "I'm sitting here by myself ... ": Experiences of patients with serious illness at an urban public hospital. *Journal of Palliative Medicine, 13*(6), 695-701. doi:10.1089/jpm.2009.0352

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Not stated - cross-sectional.* *Lists themes that were impacted but does not state how / direction of influence.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Brief.*

	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐Partially	*Aim to understand concerns, preferences and perspectives on improving end of life care. No hypotheses specified.*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Integrated into Setting, though present.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☑Yes ☐No ☐ Partially	*Clear and concise.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐ Partially	*Concern regarding the exclusion of non-English speaking patients, when this study explicitly sought to sample under-represented minorities.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☑Yes ☐No ☐ Partially	*Yes where appropriate, i.e. outcomes, disease prevalence in sample.*
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☐Yes ☑No ☐ Partially	*N/A*
	9	Describe any efforts to address potential sources of bias ☐Yes ☑No ☐ Partially	

Methods	10	Explain how the study size was arrived at ☑Yes ☐No ☐ Partially	*When themes repeated and no new themes emerged, recruitment was discontinued.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☐Yes ☑No ☐ Partially ☐No ☐ Partially	*N/A*
	12	Describe all statistical methods, including those used to control for confounding ☐Yes ☑No ☐ Partially Describe any methods used to examine subgroups and interactions ☐Yes ☑No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☑Yes ☐No ☐ Partially Describe any sensitivity analyses	*N/A* *N/A* *N/A* *N/A* *N/A* *As appropriate for the design.* *N/A*

Methods		☐Yes ☑No ☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☐Yes ☐No ☑ Partially Give reasons for non-participation at each stage ☐Yes ☐No ☑ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*333 screened, 32 eligible, 22 interviewed. Doesn't state reasons for those not eligible.* *None*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*11 participants had cancer – does not state which type.* *Does not state the number of participants who contributed information to the categories/themes.* *N/A*

Results	15	Report numbers of outcome events or summary measures over time ☐Yes ☑No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☑Yes ☐No ☐ Partially	*N/A*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☐Yes ☑No ☐ Partially Report category boundaries when continuous variables were categorised ☐Yes ☑No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*N/A* *N/A* *N/A*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☐Yes ☑No ☐ Partially	*N/A*
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Structure could be improved, but the content is present.*

Discussion	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☑Yes ☐No ☐ Partially	*Acknowledge the issue of excluding non-English speaking patients.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Difficult life histories impacted end-of-life experiences and patient-provider interactions in the domains of relationships, concern about dying and coping.*
	21	Discuss the generalisability of the study results ☑Yes ☐No ☐ Partially	*Small scale research, one centre, urban dwelling sample.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☑Yes ☐No ☐ Partially	*Pathways to Careers in Clinical and Translational Research program.*

Critical Review – Paper 2

Citation	Gallo-Silver, L., & Weiner, M. O. (2006). Survivors of childhood sexual abuse diagnosed with cancer: Managing the impact of early trauma on cancer treatment. *Journal of Psychosocial Oncology, 24*(1), 107-134. doi:10.1300/J077v24n01_08

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☐Yes ☑No ☐ Partially	*Not stated. Cross-sectional.* *Missing key details, e.g. design, procedure.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☐Yes ☐No ☑ Partially	*Rationale not clear. Review of literature comprehensive and relevant.*
	3	State specific objectives, including any pre-specified hypotheses ☐Yes ☑No	*Stated in the abstract but missing from the introduction. Describe the impact of CSA on*

		☐ Partially	*cancer treatment of 18 patients.*
Methods	4	Present key elements of study design early in the paper ☐Yes ☑No ☐ Partially	*No clear sense of this.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☐No ☑Partially	*Setting and location present, dates of recruitment and process of data collection absent/unclear.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☐Yes ☐No ☑Partially	*Describes patient demographics, eligibility criteria can be inferred but not clear.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☐Yes ☑No ☐ Partially	*N/A*
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☐Yes ☑No ☐ Partially	
	9	Describe any efforts to address potential sources of bias ☐Yes ☑No ☐ Partially	*Not addressed.*

Methods	10	Explain how the study size was arrived at ☐Yes ☑No ☐ Partially	*No clear rationale for sample size.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☐Yes ☑No ☐ Partially	*N/A*
	12	Describe all statistical methods, including those used to control for confounding ☐Yes ☑No ☐ Partially Describe any methods used to examine subgroups and interactions ☐Yes ☑No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes ☑No ☐ Partially Describe any sensitivity analyses ☐Yes ☑No	*N/A* *N/A* *N/A* *N/A* *N/A* *N/A* *N/A*

Methods		☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☐Yes ☑No ☐ Partially Give reasons for non-participation at each stage ☐Yes ☑No ☐ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*Only states sample size.* *Not addressed. Unsure how selected.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☐Yes ☐No ☑ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*Info on participants thorough. Potential confounders not addressed.* *N/A*

Results	15	Report numbers of outcome events or summary measures over time ☐Yes ☑No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☐Yes ☑No ☐ Partially	
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☐Yes ☑No ☐ Partially Report category boundaries when continuous variables were categorised ☐Yes ☑No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	N/A N/A N/A
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☐Yes ☑No ☐ Partially	N/A
Discussion	18	Summarise key results with reference to study objectives ☐Yes ☐No ☑ Partially	*Objectives not clearly defined, though some attempt to summarise key results.*

	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☐Yes ☑No ☐ Partially	*Not addressed.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☐Yes ☐No ☑ Partially	*Interpretation in line with other studies and evidence, though as objectives were not clear and limitations not addressed, overall summary is not balanced.*
	21	Discuss the generalisability of the study results ☐Yes ☐No ☑ Partially	*Some discussion of applicability of concepts discussed to other groups, though does not consider in depth.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☐Yes ☑No ☐ Partially	*Not stated.*

Critical Review – Paper 3

Citation	Holwerda, N., Sanderman, R., Pool, G., Hinnen, C., Langendijk, J. A., Bemelman, W. A., Sprangers, M. A. G. (2013). Do patients trust their physician? The role of attachment style in the patient-physician relationship within one year after a cancer diagnosis. *Acta Oncologica, 52*(1), 110-117. doi:10.3109/0284186X.2012.689856

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Cohort study.* *Comprehensive overview.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Concise summary of literature to date, leads logically into rationale.*

Introduction	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*Clearly presented. Examine whether insecurely attached patients report less trust in and satisfaction with their clinician and more general distress than securely attached patients at 3 and 9 months following their cancer diagnosis. Assess whether trust mediates attachment style and satisfaction, and attachment and distress.*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Longitudinal multi-centre study on attachment style and adjustment to cancer.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☑Yes ☐No ☐ Partially	*All present and described in appropriate level of detail. Recruitment spanned 21 month and sample taken from 3 hospitals.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐ Partially	*All present and described in appropriate level of detail. Patients aged 30-75, first diagnosis of cancer, expected survival of at least one year, speak Dutch.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☑Yes ☐No ☐ Partially	*All present and described in appropriate level of detail.*

Methods	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*Attachment, trust, satisfaction, patient demographic and clinical factors.*
	9	Describe any efforts to address potential sources of bias ☐Yes ☑No ☐ Partially	*Not addressed.*
	10	Explain how the study size was arrived at ☑Yes ☐No ☐ Partially	*Power analysis determined sample size of 122 (sample obtained 130).*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☑Yes ☐No ☐ Partially	*Attachment style categorised as secure vs insecure, trust – mean score used, satisfaction – mean score used, distress – combined subscales to give one score.*
	12	Describe all statistical methods, including those used to control for confounding ☑Yes ☐No ☐ Partially Describe any methods used to examine subgroups and interactions ☑Yes ☐No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially	*All outlined.* *Gender, age, cancer type, educational level, treatment.* *Does not address.* *Does not address – 10 patients lost to follow up.* *N/A*

Methods		Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes ☑No ☐ Partially Describe any sensitivity analyses ☐Yes ☑No ☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☑Yes ☐No ☐ Partially Give reasons for non-participation at each stage ☐Yes ☑No ☐ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*165 agreed to participate, 130 total completed questionnaires.* *Not given – stated that medical ethical reasons prevented this information being given.* *No flow diagram used, but it would have enhanced the clarity of participant numbers at each stage of study.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☐Yes ☐No ☑ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☐Yes	*Potential confounders not addressed.* *Does not state whether all questionnaires were completed fully.* *3 and 9 months stated, does not*

Results		☐No ☑Partially	*describe whether these were all completed at these precise points.*
	15	Report numbers of outcome events or summary measures over time ☑Yes ☐No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☑Yes ☐No ☐ Partially	*Not mentioned in text, but included in table.*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☑Yes ☐No ☐ Partially Report category boundaries when continuous variables were categorised ☐Yes ☐☑No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*N/A* *N/A*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☑Yes ☐No ☐ Partially	
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Insecurely attached patients reported less trust in and satisfaction with their physician, and reported more general distress than securely attached patients. Trust mediated*

Discussion			*attachment and satisfaction.*
	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☑Yes ☐No ☐ Partially	*Low response rate addressed, questionnaires – short forms.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Clear and concise.*
	21	Discuss the generalisability of the study results ☑Yes ☐No ☐ Partially	*Longitudinal and heterogeneous sample increase generalisability.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☑Yes ☐No ☐ Partially	*Dutch Cancer Society*

Critical Review – Paper 4

Citation	Pegman, S., Beesley, H., Holcombe, C., Mendick, N., & Salmon, P. (2011). Patients' sense of relationship with breast cancer surgeons: The relative importance of surgeon and patient variability and the influence of patients' attachment style. *Patient Education and Counseling, 83*(1) doi:10.1016/j.pec.2010.04.023

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Cross-sectional.* *133 women due to undergo surgery for breast cancer rated relationship with surgeon and indicated attachment style. Those who were securely attached rated better alliance.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Concise.*

Introduction	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*Is variation in sense of relationship with surgeons due to variability between patients or variability between surgeons? Does patient attachment style influence the sense of relationship with surgeon?*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Quantitative, cross-sectional.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☐No ☑Partially	*Dates and location omitted.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐ Partially	*Over 18, primary breast cancer diagnosis due to undergo surgery.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☑Yes ☐No ☐ Partially	*Possible confounder – depression.*
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*WAI for relationship, depression using HADS depression scale, attachment using RSQ and RQ.*

Methods	9	Describe any efforts to address potential sources of bias ☐Yes ☐No ☑ Partially	*Mentions bias in relation to selection of attachment measures.*
	10	Explain how the study size was arrived at ☐Yes ☑No ☐Partially	*Not identified.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☐Yes ☐No ☑ Partially	*States how patients were categorised on the attachment measure, but not WAI or HADS.*
	12	Describe all statistical methods, including those used to control for confounding ☑Yes ☐No ☐ Partially Describe any methods used to examine subgroups and interactions ☑Yes ☐No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes	*Described adequately.* *Not addressed. States number of complete questionnaires.* *N/A.* *N/A.* *Sample size not justified.*

		☐No ☑ Partially Describe any sensitivity analyses ☐Yes ☑No ☐ Partially	*Not addressed.*
Results	13	Report numbers of individuals at each stage of the study ☐Yes ☐No ☑Partially Give reasons for non-participation at each stage ☐Yes ☐No ☑ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*Does not state how many excluded.* *Gives the main reason (lack of time before clinic appointment) but not all details.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*133, mean age 58.9, 96% two week after diagnosis, prior to surgery.* *Stated overall incomplete questionnaires, but not what was done with data.* *N/A.*

Results	15	Report numbers of outcome events or summary measures over time ☐Yes ☑No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☐Yes ☑No ☐ Partially	
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☐Yes ☑No ☐ Partially Report category boundaries when continuous variables were categorised ☑Yes ☐No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*Attachment – highest mean allocated to that group.*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☑Yes ☐No ☐ Partially	*Subgroup interactions – depression.*
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Variation in sense of relationship with surgeons due mainly to variability between patients. Patient insecure attachment style higher alliance with clinician.*

Discussion	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☐Yes ☐No ☐ Partially	
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*WAI used in mental health care. Measures of attachment style psychometric and conceptual weaknesses. Small sample.*
	21	Discuss the generalisability of the study results ☐Yes ☑No ☐ Partially	*Does not address.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☐Yes ☑No ☐ Partially	*Not stated.*

Critical Review – Paper 5

Citation	Salmon, P., Holcombe, C., Clark, L., Krespi, R., Fisher, J., & Hill, J. (2007). Relationships with clinical staff after a diagnosis of breast cancer are associated with patients' experience of care and abuse in childhood. *Journal of Psychosomatic Research, 63*(3), 255-262. doi:10.1016/j.jpsychores.2007.05.002

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Cross-sectional.* *355 women with primary breast cancer self-reported abuse, parental care, social support, surgeon support and distress.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Clear.*

	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*Tested prediction that patients with breast cancer who recalled abuse and lack of parental care in childhood would feel less supported by professionals than other patients.*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Presented.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☑No ☐ Partially	*Setting / location not explicitly described, dates omitted.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐ Partially	*Source not explicit but can be inferred.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☑Yes ☐No ☐ Partially	
Methods	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*Maternal and paternal care – parental bonding instrument. Retrospective reporting of abuse. Perceived prof support- re-coded as binary. Emotional support measured by medical outcomes study social support survey re-coded as binary. Distress – 12 item ghq, ptsd checklist.*

Methods	9	Describe any efforts to address potential sources of bias ☑Yes ☐No ☐ Partially	*Discussed recall bias re abuse.*
	10	Explain how the study size was arrived at ☐Yes ☑No ☐ Partially	*Does not address.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☑Yes ☐No ☐ Partially	*Described.*
	12	Describe all statistical methods, including those used to control for confounding ☑Yes ☐No ☐ Partially Describe any methods used to examine subgroups and interactions ☑Yes ☐No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes	*Logistic regression and covariance structure analysis.* *Not identified.* *N/A* *N/A*

		☐No ☑ Partially Describe any sensitivity analyses ☑Yes ☐No ☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☑Yes ☐No ☐ Partially Give reasons for non-participation at each stage ☐Yes ☑No ☐ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*474 approached, 79% agreed to participate, 14 withdrew, 5 supplied too few data to be included. 355.4.1% missing data.* *Not addressed.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☐No ☑ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*Age, reporting of abuse.* *States missing data, but not which variable it was attributed to.* *N/A.*

Results	15	Report numbers of outcome events or summary measures over time ☑Yes ☐No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☐Yes ☐No ☐ Partially	*N/A.*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☑Yes ☐No ☐ Partially Report category boundaries when continuous variables were categorised ☑Yes ☐No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*Support measures.* *N/A.*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☑Yes ☐No ☐ Partially	
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Patients recalling abuse or lack of parental care less likely to report full support around time of diagnosis. Support felt by staff related to support by friends and family. Abuse specifically linked to staff support. Perceived quality of prof support depends on*

Discussion			*patients' childhood experiences.*
	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☑Yes ☐No ☐ Partially	*Takes into account measures, recall, other potential confounders.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Clearly explained.*
	21	Discuss the generalisability of the study results ☑Yes ☐No ☐ Partially	*Breast cancer patients, similar care settings.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☑Yes ☐No ☐ Partially	*CRUK.*

Critical Review – Paper 6

Citation	Lilliehorn, S., Hamberg, K., Kero, A., & Salander, P. (2010). 'Admission into a helping plan': A watershed between positive and negative experiences in breast cancer. *Psycho-Oncology, 19*(8), 806-813. doi:10.1002/pon.1619

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☐Yes ☑No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Longitudinal, Qualitative* *Identify breast cancer patients' psychosocial needs, through interviews with 71 breast cancer patients, grounded theory.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Clear.*

	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*Categorise the psychosocial needs of cancer patients in healthcare and synthesise them in a model.*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Part of a larger research project looking at patients finding their way out of potential biographical disruption into new everyday life.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☐No ☑ Partially	*Omits dates. 12 month recruitment period. Interviewed 3 or 4 time over 18-24 months.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐ Partially	*Newly diagnosed women with breast cancer, under 60.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☐Yes ☑No ☐ Partially	*N/A.*
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*As appropriate to study.*
	9	Describe any efforts to address potential sources of bias ☑Yes ☐No ☐ Partially	*Potential bias in data analysis.*

Methods	10	Explain how the study size was arrived at ☐Yes ☐No ☑ Partially	*Can infer that this was the maximum number of potential participants within the sampling time frame.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☐Yes ☑No ☐ Partially	*N/A.*
	12	Describe all statistical methods, including those used to control for confounding ☐Yes ☑No ☐ Partially Describe any methods used to examine subgroups and interactions ☐Yes ☑No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes ☑No ☐ Partially Describe any sensitivity analyses ☐Yes ☑No	*N/A.* *N/A.* *N/A.* *N/A.* *N/A.* *N/A.* *N/A.*

Methods		☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☐Yes ☐No ☑ Partially Give reasons for non-participation at each stage ☐Yes ☑No ☐ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*Could be clearer.* *Not identified.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☑Yes ☐No ☐ Partially	*Age, living status, educational level, treatment.* *N/A.* *18-24 months.*

Results	15	Report numbers of outcome events or summary measures over time ☑Yes ☐No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☐Yes ☑No ☐ Partially	*As appropriate.* *N/A.*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☐Yes ☑No ☐ Partially Report category boundaries when continuous variables were categorised ☐Yes ☑No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*N/A.* *N/A.* *N/A.*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☐Yes ☑No ☐ Partially	*N/A.*
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Outlines key themes related to psychosocial needs of breast cancer patients.*

Discussion	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☐Yes ☑No ☐ Partially	*No limitations acknowledged.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Draws from attachment literature and points to clinical implications.*
	21	Discuss the generalisability of the study results ☐Yes ☐No ☑Partially	*States findings are likely to be generalisable but would benefit from more consideration.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☑Yes ☐No ☐ Partially	*Swedish Cancer Society*

Critical Review – Paper 7

Citation	Wright, E., Holcombe, C., & Salmon, P. (2004). Doctors' communication of trust, care, and respect in breast cancer: Qualitative study. *British Medical Journal, 328*(7444), 864-867. doi:10.1136/bmj.38046.771308.7C

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☑Yes ☐No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Qualitative study.* *Determine how patients with breast cancer want their doctors to communicate with them.*
Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Clear, logical flow.*

	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*Describe what women with breast cancer sought from communication with their clinicians.*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Semi-structured interviews examining clinicians' communication according to how patients experienced it.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☐No ☑ Partially	*Surgery and oncology clinics. Does not state location or dates.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☐Yes ☐No ☑ Partially	*Partially covered, more information on method of selection would be useful.*
	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☐Yes ☑No ☐ Partially	*N/A.*
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*As appropriate to study.*
	9	Describe any efforts to address potential sources of bias ☐Yes ☐No ☑ Partially	*Some consideration.*

Methods	10	Explain how the study size was arrived at ☐Yes ☑No ☐ Partially	*Not clear.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☐Yes ☑No ☐ Partially	*N/A.*
	12	Describe all statistical methods, including those used to control for confounding ☐Yes ☑No ☐ Partially Describe any methods used to examine subgroups and interactions ☐Yes ☑No ☐ Partially Explain how missing data were addressed ☐Yes ☑No ☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☐Yes ☑No ☐ Partially Describe any sensitivity analyses ☐Yes ☑No	*N/A.* *N/A.* *N/A.* *N/A.* *N/A.* *N/A.* *N/A.*

Methods		☐ Partially	
Results	13	Report numbers of individuals at each stage of the study ☑Yes ☐No ☐ Partially Give reasons for non-participation at each stage ☐Yes ☑No ☐ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*4 patients declined, 39 participated.* *Not addressed.* *Not present.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐ Partially Indicate number of participants with missing data for each variable of interest ☐Yes ☑No ☐ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*Age, occupation, stage of cancer, treatment, timing of interview, consultant.* *N/A.* *N/A.*

Results	15	Report numbers of outcome events or summary measures over time ☑Yes ☐No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☐Yes ☑No ☐ Partially	*N/A.*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☐Yes ☑No ☐ Partially Report category boundaries when continuous variables were categorised ☐Yes ☑No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*N/A.* *N/A.* *N/A.*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☐Yes ☑No ☐ Partially	*N/A.*
Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Main themes expertise, caring relationship and respect. Patients want a genuine and unique relationship.*

Discussion	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☐Yes ☑No ☐ Partially	*Not addressed.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Related to other studies in this area, synthesised current knowledge and compared findings of this study.*
	21	Discuss the generalisability of the study results ☑Yes ☐No ☐ Partially	*Other samples.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☑Yes ☐No ☐ Partially	*Author funded by Gloucestershire LEA for intercalculated year.*

Critical Review – Paper 8

Citation	Clark, L., Beesley, H., Holcombe, C., & Salmon, P. (2011). The influence of childhood abuse and adult attachment style on clinical relationships in breast cancer care. *General Hospital Psychiatry, 33*(6), 579-586. doi:10.1016/j.genhosppsych.2011.07.007

Paper Section	**Item no**	**Key Points under Consideration**	**Comments**
Title and Abstract	1	Indicate the study's design with a commonly used term in the title or abstract ☑Yes ☐No ☐ Partially Provide in the abstract an informative and balanced summary of what was done and what was found ☑Yes ☐No ☐ Partially	*Cross-sectional.* *100 women with breast cancer completed self-report questionnaires, found that those recalling abuse more likely to feel incompletely supported by surgeons, and surgeons also reported more difficulty with patients recalling abuse. Attachment model of self mediated the first relationship.*

Introduction	2	Explain the scientific background and rationale for the investigation being reported ☑Yes ☐No ☐ Partially	*Clear and concise.*
	3	State specific objectives, including any pre-specified hypotheses ☑Yes ☐No ☐ Partially	*1) History of abuse is related to feeling incompletely supported by the surgeon* *2) Surgeons' perception of difficulty in relationship mediates association of abuse with incomplete support* *3) Does attachment mediate relationship of abuse and patients' perception of incomplete support* *4) Does attachment mediate relationship of abuse and surgeons' perception of difficulty in relationship*
Methods	4	Present key elements of study design early in the paper ☑Yes ☐No ☐ Partially	*Quantitative. Cross-sectional.*
	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection ☐Yes ☐No ☑ Partially	*Recruitment dates, location omitted.*
	6	Give eligibility criteria, sources and methods of selection of participants, describe methods of follow up, rationale for choice of cases and controls, give matching criteria ☑Yes ☐No ☐Partially	*18 years and older, excluded if had recurrent or metastatic cancer or distressed.*

Methods	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria ☑Yes ☐No ☐ Partially	
	8	For each variable, give sources of data and details of methods of measurements. Describe comparability of assessment methods if there is more than one group ☑Yes ☐No ☐ Partially	*RQ, RSQ, PPSQ, Difficult Doctor Patient Relationship Questionnaire, Nottingham Prognostic Index, GHQ-12, parental bonding measurement.*
	9	Describe any efforts to address potential sources of bias ☑Yes ☐No ☐ Partially	*Recall bias on questionnaires.*
	10	Explain how the study size was arrived at ☐Yes ☑No ☐ Partially	*Not addressed.*
	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why ☑Yes ☐No ☐ Partially	*Outlined.*
	12	Describe all statistical methods, including those used to control for confounding ☑Yes ☐No ☐ Partially Describe any methods used to examine subgroups and interactions ☑Yes ☐No ☐ Partially Explain how missing data were addressed ☐Yes ☑No	*Logistic regression, linear regression.* *Distress associated with professional support.* *Not addressed.*

Methods		☐ Partially Explain how loss to follow-up was addressed ☐Yes ☑No ☐ Partially Explain how matching of cases and controls was addressed ☐Yes ☑No ☐ Partially Describe analytical methods taking account of sampling strategy ☑Yes ☐No ☐ Partially Describe any sensitivity analyses ☑Yes ☐No ☐ Partially	*N/A.* *N/A.* *Logistic regression, linear regression.*
Results	13	Report numbers of individuals at each stage of the study ☑Yes ☐No ☐ Partially Give reasons for non-participation at each stage ☐Yes ☐No ☑ Partially Consider use of a flow diagram ☐Yes ☑No ☐ Partially	*100 consenting, 130 approached* *States most cited reason. Does not account for all.*
	14	Give characteristics of study participants and information on exposures of potential confounders ☑Yes ☐No ☐ Partially Indicate number of participants with missing data for each variable of interest ☐Yes	*Age, treatment, NPI score, abuse.* *Not addressed.*

Results		☑No ☐ Partially Summarise follow-up time ☐Yes ☑No ☐ Partially	*N/A.*
	15	Report numbers of outcome events or summary measures over time ☐Yes ☑No ☐ Partially Report numbers in each exposure category, or summary measures of exposure ☑Yes ☐No ☐ Partially	*N/A.*
	16	Give unadjusted estimates and confounder-adjusted estimates and their precision (e.g. with CI) ☑Yes ☐No ☐ Partially Report category boundaries when continuous variables were categorised ☑Yes ☐No ☐ Partially Consider translating estimates of relative risk into absolute risk for a meaningful time period ☐Yes ☑No ☐ Partially	*N/A.*
	17	Report other analyses done e.g. subgroups and interactions, sensitivity analyses ☑Yes ☐No ☐ Partially	

Discussion	18	Summarise key results with reference to study objectives ☑Yes ☐No ☐ Partially	*Patients reporting childhood abuse more than 7 times more likely to feel incompletely supported, and surgeons found them more difficult to help. Attachment mediated relationship between abuse and patients' perceived support.*
	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss direction and magnitude of any potential bias ☑Yes ☐No ☐ Partially	*Retrospective reporting of abuse.*
	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, other relevant evidence ☑Yes ☐No ☐ Partially	*Well presented.*
	21	Discuss the generalisability of the study results ☑Yes ☐No ☐ Partially	*Other similar cancer samples, patients with little previous interaction with their surgeons.*
Other Information	22	Give the source of funding and the role of the funders for the present study and for the original study on which the present article is based ☐Yes ☑No ☐ Partially	*Not mentioned.*

Adapted from original version by: Von Elm, E., Egger, M., Altman, D. G., Pocock, S. J., Gøtzsche, P. C., & Vandenbroucke, J. P. (2008). The strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting of observational studies. *Notfall Und Rettungsmedizin, 11*(4), 260-265. doi:10.1007/s10049-008-1057

Appendix E Participant information sheet

Patient Information Sheet

Do childhood experiences and insecure attachment style in people with gynaecological cancer affect trust in care?

You are invited to take part in a research project looking at how easy or difficult women with gynaecological cancer find it to trust their doctors. Before you decide whether or not you would like to take part, please read the following information, which explains the details of the study. If you have any questions, please ask.

What is the study for?

Different people react to the same illness in different ways. Some become very distressed or unhappy. We think that doctors need to know more about the things that affect how people react. Therefore, each week, patients in this clinic are being asked to help with some research by answering questions about feelings and experiences which might affect how people cope with their illness and treatment.

Why have I been chosen to take part?

Women who have a primary diagnosis of gynaecological cancer are being asked if they would like to help with this study. The study is inviting women to take part who have completed surgery and/or chemotherapy and are attending the 'holistic clinic'.

Do I have to take part?

You do not have to take part in the study – participation is voluntary. If you decide you do not want to participate this will not affect the care that you receive.

What will happen if I take part?

If you agree to take part, you will be asked to complete some questionnaires. Some questions ask about how you are coping. Others ask about your relationships with other people, both in general and with your surgeon or oncologist. Others ask about memories of your childhood. Some of the questions are personal and ask about events that might have been upsetting. If you become upset we will ensure help and support is available, either from a clinically qualified member of our team or via another service, as appropriate. Many of the questions may not apply to you. However, if our research is to be successful we need the views of as many patients as possible. Therefore we would be very grateful if you would be willing to take part.

The questionnaires take around 15 minutes to complete. They all have a 'tick-box' format and so do not require long answers. The researcher will be with you as you fill them in, to answer any questions you may have. If you decide to take part, the researcher will look at your medical records in order to obtain some basic information about your illness and treatment.

Are there any risks in taking part?

There are no known risks to taking part in this research.

Will I benefit from taking part?

The women taking part will not benefit directly from the study. However, we hope that this research will increase our understanding of difficulties that some women with gynaecological cancer have, in order to strengthen the support we give to women in future.

What if there is a problem?

If you are unhappy, or if there is a problem, please let us know by contacting the main investigator, Bethany Larham on 0151 794 5530 or Dr. Helen Beesley on 0151 706 3126, and we will try to help. If you remain unhappy then you should contact the Research Governance Officer at the University of Liverpool on 0151 794 8290. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researchers involved, and details of the complaint you wish to make.

Will my participation be kept confidential?

Your answers to our questions will be completely confidential. That means that none of your doctors or nurses will know what you have answered. (Of course, if you told us something else that made us think that your own health or someone else's was at risk, we might have to tell someone). Any information about you that leaves the hospital will have your name and address removed so that you cannot be recognised from it. You will be known by a code number only and your name will not be written on any of the questionnaires.

Who is funding the research?

The University of Liverpool is funding this research. Bethany Larham is a Trainee Clinical Psychologist, employed by Mersey Care NHS Trust.

What will happen to the results of the study?

This study will be written up for Bethany Larham's doctorate thesis and submitted for publication in a research journal. Overall results will also be made available to participants

upon completion of the study in 2013 and will be available from the main researcher, Bethany Larham. It will not be possible to identify individual participants from this work.

What will happen if I want to stop taking part?

You can withdraw from this study at any time, without having to give an explanation. If you withdraw from the study we would destroy any information we had collected from you.

Who has reviewed this study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given a favourable opinion by the Research Ethics Committee.

I still have some questions...

Please feel free to contact Bethany Larham on 0151 794 5530. If she's not there, please leave a message and she will call you back. Thank you for your time in reading this.

Chief Investigator:

Professor Peter Salmon

Professor of Clinical Psychology

University of Liverpool

Whelan Building, The Quadrangle, Brownlow Hill, Liverpool L69 3GB

psalmon@liverpool.ac.uk

0151 794 5530

Appendix F Questionnaire booklet

This text box is where the unabridged thesis included the following third party copyrighted material:

Goldberg, D. (1985). Identifying psychiatric illnesses among general medical patients. *British Medical Journal, 291,* 161-162.

Drossman, D. A., Leserman, J., Nachman, G., Li, Z., Gluck, H., Toomey, T. C., & Mitchell, M. (1990). Sexual and physical abuse in women with functional or organic gastrointestinal disorders. *Annals of Internal Medicine, 113,* 828-833.

Bartholomew, K. & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a 4-category model. *Journal of Personality and Social Psychology, 61,* 226-244.

Griffin, D. & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67,* 430-445.

Hill, J., Murray, L., Woodall, P., Parmar, B., & Hentges, F. (2004). Recalled relationships with parents and perceptions of professionals' support in mothers of infants treated for cleft lip. *Attachment and Human Development, 6,* 21-30.

Horvath, A. O. & Greenberg, L. S. (1989). Development and Validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36,* 223-233.

Sutherland, H.J., Llewellyn-Thomas, H.A., Lockwood, G.A., Trichler, D.L., & Till, J.E. (1989). Cancer patients: Their desire for information and participation in treatment decisions. *Journal of the Royal Society of Medicine, 82,* 260-263.

Martin, J., Anderson, J., Romans, S., Mullen, P., O'Shea, M. (1993) Asking about child sexual abuse: Methodological implications of a two stage survey. *Child Abuse Neglect.* 17(3):383-92.

Appendix G Dissertation guidelines

The UNIVERSITY of LIVERPOOL

Doctor of Clinical Psychology

NEW DISSERTATION FORMAT

1. An Introductory Chapter: Thesis Overview
   - to provide an overview of the research thesis and how the various sections/chapters relate to each other. (This is not for publication)

2. Chapter 1: A Literature Review
   - this will most likely be a systematic review or a narrative review. (Publication should be considered if possible, but optional depending on the research area)

3. Chapter 2: Empirical Paper
   - which reports the main study. This is intended for publication, and the style should adhere to presentation style for the particular journal outlet chosen.

4. Concluding Discussion– will include the following three components as sub-sections:
   - A general overview of the work done, expanded discussion on its relevance for theory, research, and practice;
   - Feedback (e.g., in a form suitable for participants; A short lay summary of the main study that could be used for wider dissemination of your research (2-3 paragraphs); AND / OR a different version of the main study report (e.g., for a particular audience; professional report);
   - Design of a follow-on study to continue or follow-up the work you have done.

5. References to be included at the end of each major dissertation section

6. Appendices included at the end of the thesis. Each Appendix is numbered and includes a title for cross-reference purposes in the main text.

Please refer to Final Page of these Supplementary Thesis Guidelines (Appendix 1) for details re: order of presentation from 'thesis cover page – to the end of thesis'

Notes:

i) Trainees are asked to specify a "target" journal(s). The "targeted" journal outlets should be discussed with supervisors.

ii) Dissertation: Maximum word count 25 000. There is no specified word count for individual chapters. However, word counts for individual chapters should be discussed in supervision and will be guided in part by the 'targeted' journal(s) outlet.

CHAPTER 1: LITERATURE REVIEW

GENERAL SUPPLEMENTARY GUIDELINES

Literature reviews critically evaluate published work. They provide the reader with an up-to-date review of the research progress on a particular topic to address a particular problem, issue, or research question. Literature reviews can be organised in a variety of ways but they typically address the following aspects, as cited from the American Psychological Association (APA) publication manual:

- Define and clarify a problem
- Summarize previous investigations to inform the reader of the state of research
- Identify relations, contradictions, gaps, and inconsistencies in the literature
- Suggest the next step or steps in solving the problem

(APA, 6th Ed., p. 10)

For your Doctorate of Clinical Psychology research project you are most likely to write a 'narrative review' or 'systematic review'. You are not expected to conduct a 'meta-analysis' or 'meta-synthesis'. It is important to discuss your choice of approach with your supervisor(s). You should also consult potential journal(s) if you are considering the publication of your literature review, as particular journals may have a clear preference for the type of literature reviews being published. In this case, the **word count** and **presentation style** (i.e., referencing) for your literature review will adhere to the author guidelines for the selected journal outlet.

Different Types of Literature Reviews

1) ***Narrative Reviews:*** *"This type of review critiques and summarizes a body of literature and draws conclusions about the topic in question. The literature is made up of the relevant studies and knowledge that address the subject area. It is typically selective in the material it uses, although the criteria for selecting specific sources for review are not always apparent to the reader. This type of review is useful in gathering together a volume of literature in a subject area and summarizing and synthesizing it. Its primary purpose is to provide the reader with a comprehensive background for understanding current knowledge and highlighting the significance of new research." (Cronin, Ryan & Coughlan, 2008, p. 38)*

2) ***Systematic Reviews:*** *"In contrast to the traditional or narrative review, systematic reviews use a more rigorous and well-defined approach to reviewing the literature in a specific subject area. Systematic reviews are used to answer well-focused questions...Unlike the traditional review, the purpose of a systematic review is to provide as complete a list as possible of all the published studies (and unpublished) relating to a particular subject area. While traditional reviews attempt to summarize results of a number of studies, systematic reviews use explicit and rigorous criteria to identify, critically evaluate and synthesize all the literature on a particular topic." p.39*
"Parahoo (2006) suggests that a systematic review should detail the time frame within which the literature was selected, as well as the methods used to evaluate and synthesize findings of the studies in question. In order for reader to assess the reliability and validity of the review, the reviewer needs to present the precise criteria used to:
   - *Formulate the research question*
   - *Set inclusion and exclusion criteria*
   - *Select and access the literature*
   - *Assess the quality of the literature included in the review*
   - *Analyse, synthesize and disseminate the findings." (Cronin et al., 2008, p. 39)*

3) ***Meta analyses:*** *"Meta-analysis is the process of taking a large body of quantitative findings and conducting statistical analysis in order to integrate those findings and enhance understanding. Meta-analysis is seen as a form of systematic review which is largely a statistical technique. It involves taking the findings from several studies on the same subject and analysing them using standardized statistical procedures. This helps to draw conclusions and detect patterns and relationships between findings." (Cronin, et al., 2008, p. 38)*

4) ***Meta synthesis:*** *"Meta-synthesis is a non-statistical technique used to integrate, evaluate and interpret the findings of multiple qualitative research studies. Such studies may be combined to identify their common core elements and themes. Findings from phenomenological, grounded theory, ethnographic studies may be integrated and used. Unlike meta-analysis, where the ultimate intention is to reduce findings, meta-synthesis involves analyzing and synthesizing key elements in each study, with the aim of transforming individual findings into new conceptualizations" (see Cronin et al., 2008, p.39).*

Bridging Section

In addition to writing a literature review, you may include a section at the end of your literature review to set the context for your particular research project (e.g., the rationale for your study as a further development to the existing literature).

Your 'Introductory Chapter: Thesis Overview' will also serve to develop an overall sense of coherency and line of investigation being presented in your dissertation.

Some References re Writing Literature Reviews:

References presented in James McGuire's teaching session on 'Systematic Reviews'

A Few Additional references:

Fink, A. (2010). *Conducting research literature reviews*. 3rd ed. Sage.

Baumeister, R. F. & Leary, M. R. (1997). Writing narrative literature reviews. *Review of General Psychology, 1,* 311-320. http://mrgibbs.com/tu/research/articles/literature_reviews_researched.pdf

Booth, A., Papaoiannou, D., Sutton, A. (2012). *Systematic approaches to a successful literature review.* Sage.

Boland, A., Cherry, M.G. & Dickson, R.C. (2013, in press). *Doing a systematic review: a student's guide.* Sage.

Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: A step-by-step approach. *British Journal of Nursing, 17,* 38-43. http://www.cin.ufpe.br/~in1002/leituras/2008-undertaking-a-literature-review-a-step-by-step-approach.pdf

Published Examples of Literature Reviews

You are **not** expected to write a meta-analysis or meta-synthesis for your DClin Psychology research project. Most DClin. Psych. literature reviews are likely to be in the form of a 'Systematic Review' or 'Narrative

Review'. The following are offered only as examples of the different literature review approaches and how different types of literature reviews might be organised and structured.

1. Narrative Reviews

Dudley, R., Kuyken, W., & Padesky, C. A. (2011). Disorder specific and trans-diagnostic case conceptualisation. *Clinical Psychology Review, 31,* 213-224.

Johnson, S. (2005). Mania and dyregulation in goal pursuit: A review. *Clinical Psychology Review, 25,* 241-262.

Mansell, W., Colom, F., Scott, J. (2005). The nature and treatment of depression in bipolar disorder: A review and implications for future psychological investigations. *Clinical Psychology Review, 25,* 1076-1100.

Watkins, E. (2011). Dyregulation in level of goal and action identification across psychological Disorders. *Clinical Psychology Review, 31,* 260-278.

Wood, A. M., & Tarrier, N. (2011). Positive Clinical Psychology: A new vision and strategy for Integrated research and practice. *Clinical Psychology Review, 30,* 819-829.

2. Systematic Reviews

Seyidova-Khoshknabi, D., Davis, M. P., & Walsh, D. (2011). Review article: A Systematic Review of cancer-related fatigue measurement questionnaires. *American Journal of Hospice and Palliative Medicine, 28,*

Renn, B. N., Feliciano, L., Segal, D. L. (2011). The bidirectional relationship of depression and diabetes: A systematic review. *Clinical Psychology Review, 31,* 1239-1246.

3. Meta-analyses

Norlander, B., & Echkardt, C. (2005). Anger, hostility, and male perpetrators of intimate partner violence: A meta-analytic review. *Clinical Psychology Review, 25,* 119-152.

4. Meta-syntheses

Murphy, G., Peters, K., Jackson, D, & Wilkes, L. (2011). A qualitative meta-synthesis of adult children of parents with a mental illness. *Journal of Clinical Nursing,* 3430-3442.

CHAPTER 2: EMPIRICAL PAPER

General Supplementary Guidelines

The **word count** and **presentation style** (e.g., presentation of results, references) for your research paper will be determined by the selected journal outlet. The **author guidelines** for the relevant journal should specify

the word count and provide details concerning the presentation style to be used. It is expected that you would discuss your proposed "targeted" journal outlet with your supervisor(s). Regarding sections of the thesis not intended for publication, refer to APA (6th Ed) manual guidelines. Note, many psychology journals adhere to the APA (6th Ed).

The following summary guidelines on writing a journal manuscript are based on the American Psychological Association (APA) Publication Manual 6th Edition (latest version). The British Psychological Society adheres to APA publication guidelines.

Title

The title is a concise summary of the main topic of the manuscript. The recommended length of the title is no more than 12 words (Section 2.01, p. 23).

Footnote on cover page of the empirical paper to note where the manuscript will be submitted. The respective journal 'author guidelines or instructions' are included in the appendix for examination purposes.

Abstract

The abstract is a concise, comprehensive summary of the manuscript. An abstract typically includes the aim of the research and some comment on the participants, method, findings, conclusions and implications or applications of the research. (Section 2.04, pp. 25-26)

Introduction

The manuscript typically opens with an introduction that addresses a specific problem or issue. Manuscript introductions typically address the following questions: (a) Why is this problem, issue or topic important? (b) What are the key debates/arguments (e.g., theoretical, methodological, clinical) in this field of research, (c) How does the study relate to past research in the area? (c) How does this research build on, develop or depart from previous research and/or theory in this area? (d) What are the research aims? (e) What are the primary and secondary hypotheses or research questions and objectives of the study, (f) How do these hypotheses and/or research questions relate to theory or past research? (f) What are the potential theoretical, practical and/or clinical implications of the study?

A good introduction develops a cohesive and persuasive line of investigation and sets the stage for the research (see Section2.05, pp. 27-28)

Method

This section provides an opportunity for the researcher to demonstrate the methodological rigour and planning undertaken in designing the study. A detailed description of the method enables readers to assess the quality and appropriateness of the method and the reliability and validity of the results and interpretations. It also allows other researchers to replicate your research.

The method typically includes sections to describe the design of the study, sample characteristics, measures and procedures used. Qualitative studies should also include an epistemological framework for the particular methodology being used and a clear rationale for the choice of methodology. See the APA (6thEd.) guidelines for details re the subsections that are typically included in the method (Section 2.06, pp. 29-32)

APA guidelines also recommend the inclusion of a participant flow chart. This is generally presented in either the method section or results section. An example of a participant flow chart is provided in the APA manual (p.253).

Results

Analyses are conducted on data relevant to the hypotheses, research questions or main discourse. The results should be presented in sufficient detail to justify the conclusions being drawn. It is important to report the relevant results, including non-significant findings. This section typically addresses aspects such as, data screening (e.g., missing data, data distribution, variable transformation), participant demographic information, justification for the particular analyses, the main analyses. Ancillary analyses that are justified may also be included in the results or appendices.

See Section 2.07, pp32-35 for details.

Note: In the thesis, figures and tables are presented in the main body of text in your empirical paper. However, when submitting your manuscript for publication, these are usually attached at the end of the manuscript (refer to author guidelines for publication details).

Discussion

Overall, the discussion provides an opportunity to evaluate and interpret the significant and non-significant results or qualitative themes identified in a study. It is important that the interpretations and conclusions being drawn in the discussion are based on the findings, and do not go beyond the available data. The discussion section also addresses aspects such as clinical and/or practical implications, methodological considerations, discussion of implications for future research, and conclusion. See section 2.08, pp. 35-36; pp.248-249

APA (6th Ed.) See pp.247-252 in the Appendices for some very useful checklists to consult when writing your research manuscript.

References

American Psychological Association (APA) (2010). *Publication Manual of the American Psychological Association (APA), 6th ed:* Washington, DC, APA.

Elliot,R., Fischer, C.T. & Rennie, D. L. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology, 38,* 215-229.

Greenhalgh, T. (2001). *How to read a paper.* London: BMJ Books.

Sternberg, R. J. (2000). *Guide to publishing in psychology journals.* UK: Cambridge University Press.

Sternberg, A., & Sternberg, K. (2010). *The psychologist's companion: A guide to writing scientific papers for students and researchers* (5th ed.). Cambridge: Cambridge University Press.

CHAPTER 3: CONCLUDING DISCUSSION

This will be a combination of the following three sections and you will need to collaborate with your supervisor(s) to consider the appropriate word length of each section.

Concluding Discussion Chapter - this chapter could include an opening paragraph to signpost the reader regarding the organisation of this chapter.

A).General overview - of the work done, an expanded discussion, for example on its relevance to theory, research, practice, and methodological considerations

B). Feedback (e.g., lay summary, feedback suitable for participants)

Length: approximately 2-3 paragraphs

Some tips re possible consideration

- Write for a non-scientist not familiar with your specialism.
- Describe the work in non-technical terms and avoid jargon.
- Write simply and directly, think about the structure.
- Emphasise the importance and relevance of the research.
- The summary should be of particular interest to your audience.

OR/AND

B). A Report - a different version of the main study report (e.g., professional report, periodical)

The following is not meant to be prescriptive but offers some points for possible consideration

Aims

- Demonstrate skills necessary to report your investigation to a different audience and/or publication.
- Demonstrate an ability to engage in knowledge exchange and effectively communicate with a professional audience.

Target audience and rationale for this audience

- Write a report of your investigation directed at an appropriate audience who will be interested in the study.
- State your target audience at the start of the report with the rationale for the study.

A report will typically contain the following aspects

- A statement or brief overview of the problem/research question with an appropriate description of the methods and results.
- Describe the clinical relevance of the study and findings to your target audience.

Note that non-significant findings may raise questions about the appropriateness of current practice, or reports in the literature regarding earlier studies.

- Potential recommendations/reflections, policy implications, modifying current practice etc.

Presentation

- The language and presentation style will be suitable for the target audience.
- Pay regard to whether it will be appropriate to adopt a narrative approach.

C)**. Design of a follow-on study**

Guidance

Aim

- To demonstrate the ability to critically evaluate and further develop your research study.

Guidelines

- Introduction – focus on how this proposal will further develop and extend your main research study i.e. what now needs to be addressed.
- State the research aims/questions (the big question) with any necessary predictions
- State the design

References

Sternberg, R. J. & Sternberg, K. (2010). *The Psychologist's Companion: A Guide to Writing*

Scientific Papers for Students and Researchers (5th ed.). Cambridge: Cambridge University Press.

Coley, S. M., & Scheinberg, C. A. (2007). *Proposal writing* (3rd ed.). London: Sage.

Appendix 1.

Thesis Presentation (What it will look like)

Thesis Cover Page

Acknowledgements

Table of Contents (Thesis word count included at the end of Table of Contents)

Introductory Chapter: Thesis Overview

(insert page numbers)

Chapter 1: Literature Review

(insert relevant section headers and page numbers)

Chapter 2: Empirical Paper

(insert relevant section headers and page numbers)

Chapter 3: Discussion

(insert relevant section headers and page numbers)

List of Tables

(insert Table Headers and page numbers)

List of Figures

(insert Figure Headers and page numbers)

List of Appendices

(insert in Appendix Headers /Numbers and page numbers)

(**note:** lower case roman numerals for abovementioned pages, except 'thesis cover page')

Thesis Main Text follows :

Introductory Chapter (Thesis Overview)

Chapter 1: Literature Review

Chapter 2: Empirical Paper

Chapter 3: Concluding Discussion

(**note:** page numbers start at the commencement of the Introductory Chapter (Thesis Overview) and follow through to the end of the thesis)

Appendices (Appendices follow References listed at the end of the Concluding Discussion Chapter)